This printed version of the Schedule of Classes is current as of 5/23/24 1:53 PM.

AASP African American Studies Spring 2024

AASP100 **Introduction to African American Studies**

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	Jason Nichols MWF 10:00am - 10:50am	Seats (Total: 35) WDS 1114
0201	Jason Nichols MWF 12:00pm - 12:50pm	Seats (Total: 35) WDS 1114
0301	George Kintiba MWF 12:00pm - 12:50pm	Seats (Total: 30) HBK 0105
0401	Robert Choflet TuTh 12:30pm - 1:45pm	Seats (Total: 30) JMZ 2206
0501	Shane Walsh TuTh 11:00am - 12:15pm	Seats (Total: 33) KEY 0125
0601	Shane Walsh TuTh 2:00pm - 3:15pm	Seats (Total: 35) TWS 0207
0701	George Kintiba MW 2:00pm - 3:15pm	Seats (Total: 25) SKN 1115

AASP100H **Introduction to African American Studies**

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

Restricted to HONR students only.

0301	George Kintiba MWF 12:00pm - 12:50pm	Seats (Total: 5) HBK 0105

0401	Robert Choflet TuTh 12:30pm - 1:45pm	Seats (Total: 5) JMZ 2206

AASP101 **Public Policy and the Black Community**

Formerly: AASP300.

The impact of public policies on the black community and the role of the policy process in affecting the social, economic and political well-being of minorities. Particular attention given to the post-1960 to present era.

0101	Periloux Peay TuTh 12:30pm - 1:45pm	Seats (Total: 40) LEF 2166
0201	Cecily Jackson TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0125

AASP187 **The New Jim Crow: African-Americans, Mass Incarceration and the Prison Industrial Complex**

Recommended: AASP100.

Students will examine the birth of the racial caste system following the abolition of slavery, the parallels between the racial hierarchy of the Jim Crow system and contemporary mass incarceration, and the rise of the prison industrial complex as a multi-billon business which thrives on the oppression of low-income populations and poor communities of color.

0101	John Drabinski Th 3:30pm - 6:00pm	Seats (Total: 60) SQH 1119

AASP200 **African Civilization**

A survey of African civilizations from 4500 B.C. to present. Analysis of traditional social systems. Discussion of the impact of European colonization on these civilizations. Analysis of the influence of traditional African social systems on modern African institutions as well as discussion of contemporary processes of Africanization.

0101	George Kintiba MWF 10:00am - 10:50am	Seats (Total: 40) KEY 0116

AASP202 **Black Culture in the United States**

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 30) BPS 0283

0201	Angelica Dunbar MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 35) SKN 1115 ONLINE
0301	Ashley Newby MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 35) KEY 0102 ONLINE
0401	Robert Choflet TuTh 2:00pm - 3:15pm	Seats (Total: 35) TWS 0214
0501	Angelica Dunbar MW 3:30pm - 4:45pm	Seats (Total: 25) SKN 1115

AASP202H **Black Culture in the United States**

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet TuTh 11:00am - 12:15pm	Seats (Total: 5) BPS 0283

AASP211 **Get Out: The Sunken Place of Race Relations in the Post-Racial Era**

Credit only granted for: AASP298G or AASP211. Formerly: AASP298G.

Prevailing thought suggests that we live in an era that is post-racial, particularly after the election of Barack Obama. Media often serves to drive our assessment of where our nation stands on issues like race, gender and sexuality. This course uses the film Get Out to delve into the production, evolution and significance of race in present day America. The course will engage multiple forms of media to investigate life in "Post-Racial" America, including but not limited to the role of stereotypes, interracial relationships, police-community relations, etc.

0101	Shane Walsh, Jason Nichols W 3:00pm - 5:30pm	Seats (Total: 120) MMH 1400

AASP255 **African-American History, 1865 - Present**

Cross-listed with: HIST255. Credit only granted for: HIST255, AASP255 or AASP298A.

An introductory course in the African-American experience in the United States from 1865 to the present. Topics include the aftermath of the Civil War on US race relations, the rise of segregation, northern migration, World War I and II, Civil Rights Movements, and the Black Power Movement.

0101	Terry Scott	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CHM 1228

AASP264 **Quare/Queer Contentions: Exploration of Sexualities in the Black Community**

Cross-listed with: LGBT264, WGSS264. Credit only granted for: LGBT264, AASP264, WMST264 or WGSS264.

Centering the subjectivities of queer people of color generally and more specifically, Black people (as the word "quare" invites us to do), Quare/Queer Contentions takes up key moments within the history of the Black community and asks us to consider the work and presence of LGBTQ people in these moments. The course also contends with the everyday experiences of LGBTQ subjects in the Black community. Quare/Queer Contentions, therefore, interrogates the material realities of Black queer people in the context of family, religion, cultural/creative work, among others. Interdisciplinary in orientation, the course will employ primary and secondary texts, film, art, autobiographical narratives and policy data.

0101	Michelle Rowley	Seats (Total: 32)
	TuTh 12:30pm - 1:45pm	SQH 2120

AASP298F **Special Topics in African American Studies; Caribbean Film and Literature**

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

Contact department for information to register for this course.

AASP298L **African-American Literature and Culture**

Cross-listed with: ENGL234. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with ENGL234. Credit granted for AASP298L or ENGL234.

0101	Tyra Griffin	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0121

AASP298Z **Special Topics in African American Studies; Jazz as a Cultural Art Form**

An introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to black life, cultural experiences, and political, economic, and artistic development.

0101	Ronald Zeigler	Seats (Total: 25)
	M 2:00pm - 4:30pm	NCC 0130

AASP320 **Poverty and African American Children**

Credit only granted for: AASP320 or AASP298P. Formerly: AASP298P.

The United States has high levels of child poverty compared to other industrialized nations. Poverty rates are particularly high among African American children. This course focuses on how poverty and race intersect to influence the development of children and youth. Specific topics that we will consider include definitions of poverty, theories about the causes of poverty, racial disparities in child poverty, family functioning in the context of poverty, neighborhood influences, risk and protective processes, and social policies and programs designed to mitigate the impact of poverty.

0101	Cecily Jackson TuTh 9:30am - 10:45am	Seats (Total: 25) KEY 0102

AASP371 **Black Feminist Thought**

Prerequisite: 1 course in AASP; or 1 course in WGSS. Cross-listed with: WGSS370. Credit only granted for: WMST370, WGSS370 or AASP371. Formerly: WMST370.

Examines the ideas, words and actions of Black women writers, speakers, artists, and activists in the United States.

0101	Zenzele Isoke TuTh 11:00am - 12:15pm	Seats (Total: 30) SQH 1117

AASP386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-African American Studies department; and junior standing or higher.

0101	Marshal Washington F 2:00pm - 4:30pm	Seats (Total: 10) TLF 1102

AASP397 **Senior Thesis**

(Perm req)

Restriction: Permission of BSOS-African American Studies department.

Directed research in African American Studies resulting in the completion and defense of a senior thesis.

Contact department for information to register for this course.

AASP398B **Selected Topics in the African Diaspora; Black Immigrants: Challenges and Impacts**

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with IMMR319D. Credit only granted for AASP398B or IMMR319D. How does immigration affect Black communities in the United States? How are foreign Black affected by living in the United States? Students will learn about: US history of immigration policy; pull and push factors driving Black migration; comparisons in socioeconomic outcomes between foreign and native Blacks; and differences between 1st and 2nd generation Black immigrants.

0101	Beka Guluma	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	KEY 0100

AASP398C **Selected Topics in the African Diaspora; African American Literature**

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with ENGL317 and AMST328U. Credit granted for AASP398C, AMST328U or ENGL317.

0101	Julius Fleming	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 1106

AASP398F **Selected Topics in the African Diaspora; Blackness in Israeli Popular Culture and Contemporary Art**

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with ISRL329Z and SOCY398Z. Credit only granted for ISRL329Z, AASP398F, or SOCY398Z. This course will review the work of artists of Ethiopian origin who are active in the Israeli art field today and analyze the subjects they deal with in their work in relation to the socio-political change in Israel and the increase in Ethiopian representation in popular culture. We will discuss concepts such as socio-political art, activism through art, and a-political art.

0101	Efrat Yerday	Seats (Total: 35)
	MW 2:00pm - 3:15pm	HBK 0105

AASP398I **Selected Topics in the African Diaspora; Deep Time: Memory, Media, and Ecological Imagination in the Americas**

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-Listed with ENGL378W. Credit for ENGL378W or AASP398I.

0101	Marisa Parham	Seats (Total: 25)
	Th 3:30pm - 6:00pm	TWS 1320

AASP399 **Research in African-American Studies**

(Perm req)

African American Studies research labs are the settings in which the most recent scholarly work of each faculty member takes place with the enterprise of conducting and disseminating research. Faculty members operate as the team leader and faculty mentor working with undergraduate students around a specific research topic or project. Students will have the opportunity to assist with reviewing literature, data gathering, data management, coding analysis, and the preparation of conference presentations and scholarly publications while advancing their own scholarship and interests, cultivating integrative skills, and gain training in a specialized aspect of the African American Studies discipline, which may not be otherwise available from other experiences on campus.

Contact department for information to register for this course.

AASP400 **Directed Readings in African American Studies**

Prerequisite: AASP202 or AASP100.

The readings will be directed by the faculty of African American Studies. Topics to be covered will be chosen to meet the needs and interests of individual students.

0101	Chinyere Osuji	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	ONLINE

AASP400H **Directed Readings in African American Studies**

Prerequisite: AASP202 or AASP100.

The readings will be directed by the faculty of African American Studies. Topics to be covered will be chosen to meet the needs and interests of individual students.

0101	Chinyere Osuji	Seats (Total: 5)
	TuTh 3:30pm - 4:45pm	ONLINE

AASP402 **Classic Readings in African American Studies**

Prerequisite: AASP202 or AASP100.

Classic readings of the social, economic and political status of blacks and other minorities in the United States and the Americas.

0101	Periloux Peay	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

AASP441 **Science, Technology, and the Black Community**

Prerequisite: HIST255, AASP202, or AASP100; or permission of BSOS-African American Studies department.

Scientific knowledge and skills in solving technological and social problems, particularly those faced by the black community. Examines the evolution and development of African and African American contributions to science. Surveys the impact of technological changes on minority communities.

0101	Chinyere Osuji	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	ONLINE

AASP468A **Special Topics in Africa and the Americas; The African Side of the Black Diasporic Atlantic: People, Politics, and Faiths**

Cultural, historical and artistic dimensions of the African experience in Africa and the Americas.

Cross-listed with HIST419W. Credit only granted for HIST419W or AASP468A. The Black Atlantic- the African diaspora, and development of Atlantic- world Black communities- but with the focus on the African side. How did new Atlantic states and networks develop in Africa alongside the traffic in enslaved? How did the slave trade change Africa? Focuses include Asante, Dahomey, Yorubaland, African Islamic jihads, and abolition.

0101	Paul Landau	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TLF 2108

AASP478G **Humanities Topics in African American Studies; Chocolate Cities: Urban America and the Black Experience**

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Cross-listed with HIST328Z. Credit only granted for HIST328Z or AASP478G. As early as the colonial area, cities have included significant numbers of people of African descent within their borders. By the twentieth century, war and mass migration had transformed African Americans into a predominantly urban people. This course examines a variety of urban areas in the United States, delineating how the opportunities and obstacles ofthese spaces have shaped African American life and culture from the colonial era to the present.

0101	Dennis Doster	Seats (Total: 25)
	Tu 5:00pm - 6:15pm	ONLINE
	Th 5:00pm - 6:15pm	TLF 1101

AASP478L **Humanities Topics in African American Studies; Literature and the Shaping of the Caribbean**

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Contact department for information to register for this course.

AASP498F **Special Topics in Black Culture; Women in Caribbean**

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Contact department for information to register for this course.

AASP498U **Special Topics in Black Culture; Islam in Africa and the African Diaspora**

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listed with ARAB499J and HIST429F. Credit only granted for ARAB499J, AASP498U, or HIST429F. Taught in English.

0101	Rachel Schine	Seats (Total: 30)
	MW 3:30pm - 4:45pm	HJP 2118

AASP499L **Advanced Topics in Public Policy and the Black Community**

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

Crosslisted with JOUR458J Credit only granted for: JOUR458J or AASP499L.

0101	DeNeen Brown	Seats (Total: 18)
	M 2:00pm - 4:45pm	KNI 3202

AASP499M **Advanced Topics in Public Policy and the Black Community**

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

Crosslisted with JOUR459Z Credit only granted for: JOUR459Z or AASP499M

0101	Christoph Mergerson	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	KNI 1208

AASP499N **Advanced Topics in Public Policy and the Black Community; News Coverage of Racial Issues**

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

Cross-listed with JOUR453. Credit only granted for JOUR453 or AASP499N.

0101	Anne Rosen	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KNI 3202

AASP499R **Advanced Topics in Public Policy and the Black Community; Black Politics**

(Perm req)

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

Prerequisite: AASP101 and/or GVPT170. Enrollment is restricted to students in the African American Studies program; and permission of BSOS-African American Studies department. Credit only granted for GVPT479B or AASP499R. The purpose of this course is to assist students in gaining an understanding of the relationship of people of African descent in the United States to the political system and other structures of power. We critically engage several themes/topics including Black political philosophies and ideologies, electoral politics, Black and mainstream political institutions, political behavior and psychology, gender politics, and public policy. We will also analyze and discuss the informal political spaces that serve as sites for Black politics including social media, entertainment, and pop culture.

0101	Chryl Laird TuTh 2:00pm - 3:15pm	Seats (Total: 5) TYD 1132

AAST Asian American Studies Spring 2024

AAST200 **Introduction to Asian American Studies**

Cross-listed with: AMST298C. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Julie Park TuTh 2:00pm - 3:15pm	Seats (Total: 40) TWS 0236
0201	Binod Paudyal TuTh 11:00am - 12:15pm	Seats (Total: 40) ASY 1213

AAST201 **Asian American History**

Cross-listed with: HIST221. Credit only granted for: AAST201 or HIST221.

Introduction to the history of Asian Americans and Asians in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans in World War II, the Cold War, and the issues in the civil rights & post-civil rights era.

0101	Madeline Hsu TuTh 9:30am - 10:45am	Seats (Total: 40) KEY 0103

AAST233 **Introduction to Asian American Literature**

Cross-listed with: ENGL233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	Jennifer Cho	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	EDU 1121

AAST262 **Asian American Psychology**

Cross-listed with: PSYC262. Credit only granted for: PSYC262, AAST262 or PSYC489Z. Formerly: PSYC489Z.

An overview of how socio-cultural influences impact the development and psychological health of Asian Americans. Other topics include how minority group status, adaptation and identity development influence various aspects of psychological functioning; the role of historic systematic racism; and, how the COVID-19 pandemic has negatively impacted Asian Americans. Students develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors and social support systems on the mental health, well-being and health of Asian Americans.

0101	Derek Iwamoto	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	MMH 1400

AAST298G **Special Topics in Asian American Studies; Asian American Foodways**

An introductory multidisciplinary and interdisciplinary educational experience to explore issues relevant to Asian American life, cultural experiences; and political, economic, and artistic development.

Explores how nineteenth century to contemporary discourses about Asian food cultures reflect the place and perceptions of Asians in the U.S. at different historical moments. Also considers how Asian American identities, memories, intimacies, and relations to power are negotiated through food practices in public and private spaces, creative entrepreneurship, and food writing and media.

0101	Jennifer Cho	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0214

AAST351 **Asian Americans and Media**

Credit only granted for: AAST351, AAST398M or AAST398N. Formerly: AAST398M, AAST398N.

From yellow peril invaders to model minority allies, Asian Americans have crafted their own dynamic cultural expressions in a number of media from film, television, and music to fashion, sports, and food that reveal and contest the contradictions of the U.S. nation-state. Asian American culture also uniquely sits at the nexus of immigration flows and digital technologies, providing a transnational lens to view the US place in the world. This advanced course, then, will introduce students to the study and practice of Asian American cyktyre as multiple , hybrid, and heterogeneous. It will do so through three sections: section one will introduce students to classical, cultural, and media concepts as well as relevant keywords outlined by Asian American Studies scholars; section two will review the work of Asian American cultural theorists; section three will focus on analyses of particular Asian American cultural productions. In doing so, students will gain an understanding of the shifting and interlocking tensions among the local, the national, and the global that form the cultural geographies of Asian America.

0101	Binod Paudyal TuTh 9:30am - 10:45am	Seats (Total: 30) ASY 1213

AAST378 **Experiential Learning; Experiential Learning**

(Perm req)

Field experience/internship in professional organizations and appropriate private and governmental agencies serving the Asian American community.

0101	Janelle Wong Contact instructor or department for details.	Seats (Total: 2)
0201	Joan Hong Contact instructor or department for details.	Seats (Total: 2)

AAST388 **Independent Research; Independent Research**

(Perm req)

Directed, independent study in Asian American Studies resulting in the completion of an original research paper.

Prerequisite: permission of department.

0101	Janelle Wong Contact instructor or department for details.	Seats (Total: 2)
0201	Binod Paudyal Contact instructor or department for details.	Seats (Total: 2)
0301	Jennifer Cho Contact instructor or department for details.	Seats (Total: 2)
0401	Katelin Chow Contact instructor or department for details.	Seats (Total: 15)

0501	Joan Hong	Seats (Total: 2)
	Contact instructor or department for details.	

AAST394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Cross-listed with: AMST324, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Joan Hong	Seats (Total: 30)
	MW 3:00pm - 4:15pm	TWS 1107

AAST421 **Asian American Public Policy**

Cross-listed with: AMST418N. Credit only granted for: AAST421, AAST498M or AMST418N. Formerly: AAST498M.

Using Asian Pacific Americans as a case study, this course will analyze the development of public policy in America. Each week, topics such as community development, voting rights, and the movement to redress the wartime internment of Japanese Americans will serve as backdrops for discussion. We will explore the policy-making roles of legislators, judges, local and national political leaders, journalists, writers, unions, social movements, and community organizations.

Cross-listed with AMST418N. Credit only granted for AAST421 or AMST418N.

0101	Philip Nash	Seats (Total: 20)
	M 5:00pm - 7:30pm	SQH 1119

AAST440 **South Asian American Literature and Culture**

Credit only granted for: AAST440 or AAST498W. Formerly: AAST498W.

Examines writing by South Asian American authors and authors writing about South Asian American issues. It explores major South Asian diaspora themes, considering how migration, war, the events of 9/11, global capitalism, and the changing socio-political and racial scene have affected South Asians in the United States. We will use a transnational approach to consider how writers and filmmakers explore gender, class, religious, caste, and other differences amongst South Asian Americans. We will also examine the place of South Asian Americans in relation to other Asian American populations. We will consider how South Asian American texts disrupt traditional literary classifications based on national identities by reflecting the complex global conditions, imperialistic and capitalistic expansion, and interconnectedness of peoples, nations, and cultures that have transformed American literature and conceptions of American identity.

0101	Binod Paudyal	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	KEY 0117

AAST498G **Advanced Topics in Asian American Studies; Asian American Women and Gender**

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

Cross-listed with WGSS498I. Credit only granted for AAST498G or WGSS498I. Examines Asian American identities through a transnational, gendered framework, and studies the impacts of exclusion and immigration laws and U.S. histories of (neo)colonialism and war on domestic, sexual, repr oductive, and economic labor of Asian American women. Also explores Asia n American feminism in context of Women of Color feminisms and queer of color critique.

0101	Jennifer Cho	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	SQH 1101

AGNR Agriculture and Natural Resources Spring 2024

AGNR301 **Sustainability**

Cross-listed with: PLCY301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Matthew Regan	Seats (Total: 150)
	TuTh 3:30pm - 4:45pm	TMH 0301

AGNR388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Instructor: TBA	Seats (Total: 20)
	Contact instructor or department for details.	

AGNR606 **Program Planning and Evaluation in Agricultural Education**

Formerly: AGRI606.

Second semester. Analysis of community agricultural education needs, selection and organization of course content, criteria and procedures for evaluating programs.

0101	Colby Silvert	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

AGST Agricultural Science and Technology Spring 2024

AGST275 **Fundamentals of Agricultural and Environmental Chemistry**

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132; and minimum grade of C- in (PLSC110 and PLSC11) or (PLSC112 and PLSC113) or (BSCI160 and BSCI161) or (BSCI170 and BSCI171). Restriction: Must not have completed CHEM104 or CHEM105; and must be in a major within the AGNR-College of Agriculture and Natural Resources; or permission of instructor. Credit only granted for: AGST275 or PLSC275. Formerly: PLSC275.

An in-depth discussion of chemistry targeted to students enrolled in plant and animal management curricula offered in AGNR. Covers the nomenclature and basic functional groups in organic chemistry, natural products and pesticides. Current practices of crop, agriculture and environmental management and genetic engineering also discussed.

0101	Wendy Peer	Seats (Total: 36)
	Class time/details on ELMs	ONLINE
	Class time/details on ELMs	ONLINE
	F 10:00am - 10:50am	PLS 1119

AGST400 **Advanced Crop Science**

Prerequisite: PLSC112, PLSC113, BSCI160, BSCI161, and MATH113 or higher. Recommended: ANSC101. Credit only granted for: PLSC407 or AGST400. Formerly: PLSC407. Additional information: There will be two required Saturday field trips during the semester. Because of the changing nature of agriculture, the dates of these field trips will be decided upon at the beginning of the semester by discussion among the students and based on cooperators availability and environmental factors. Students will have a minimum of two weeks notice as to the dates of the field trips.

Focuses on the study of the agronomic principles and practices required for the production of food, feed, fiber and fuel crops. This is a project-based course where students will develop a farm plan from knowledge gained in previous courses and built upon in this course. Students will learn to integrate data and information from many sources in order to build and operate a successful and sustainable agronomic farm operation using current and new technology. The use of farm management software will be an integral part of the course and farm project.

0101	William Phillips	Seats (Total: 15)
	MW 12:00pm - 12:50pm	PLS 1125
	Class time/details on ELMs	ONLINE

AGST430 **Hydroponic and Controlled Environment Food Production**

Prerequisite: PLSC110 & PLSC111, PLSC201, PLSC271. Restriction: Priority to AGST (0101A, 0101B, 0101E) students first, PLSC graduate students and undergraduate PLSC: Plant Biology (0107D) students second, and ENST students third.

Controlled environment agriculture, including hydroponic food production, has increased dramatically worldwide as demand for fresh, local, safe, nutritious food has increased and an appreciation for the negative social and environmental impacts of producing food long distances from where it is consumed has grown. Through instructor and guest lectures, growing crops in greenhouses and rooms, and visiting local hydroponic facilities, students will learn the fundamentals of how to grow vegetable and fruit crops in hydroponic and aquaponic systems.

0101	John Erwin	Seats (Total: 30)	
	Tu 8:00am - 9:15am	PLS 1119	
	Th 8:00am - 9:15am	RGC 1111	
	Th 9:30am - 12:15pm	RGC 1111	Lab

AGST442 **Examining Leadership in Youth and Volunteers**

Explore fundamental leadership theories and practice related skills utilized in helping youth and adults build community relationships in a variety of teaching environments. Fundamentals of youth development will be the basis for examining how to foster positive learning environments for dynamic learning. The identification of empowerment processes will be explored through case-study discussions.

0101	Melissa Welsh	Seats (Total: 24)	
	W 4:00pm - 5:30pm	PLS 2137	
	Class time/details on ELMs	ONLINE	

AGST605 **Extension Research Methods with Applied Data Analysis**

Examine foundational qualitative and quantitative research methods in real-world social and behavioral settings for extension and outreach educators. This course enables you to distinguish, select and apply research methods to conduct social science research in a non-formal education setting. A variety of data analysis approaches will be examined across Extension and outreach education applications.

0101	Colby Silvert	Seats (Total: 24)	
	Class time/details on ELMs	ONLINE	

AGST699 **Independent Studies in Agricultural Science and Technology**

(Perm req)

An inquiry based learning course with individualized advanced projects designed by graduate student and faculty focused on: research projects in Agricultural Science and Technology including field, greenhouse, laboratory, educational site, travel abroad and/or library studies. Conducted under the direction of a faculty member.

Restriction: By permission of instructor only. Repeatable to 6 credits if content differs. An inquiry based learning course with individualized advanced projects designed by graduate student and faculty focused on: research projects in Agricultural Science and Technology including field, greenhouse, laboratory, educational site, travel abroad and/or library studies. Conducted under the direction of a faculty member.

Contact department for information to register for this course.

AMSC Applied Mathematics & Scientific Computation Spring 2024

AMSC420 **Mathematical Modeling**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341); and 1 course with a minimum grade of C- from (STAT400, STAT410); and 1 course with a minimum grade C- from (CMSC106, CMSC131). Cross-listed with: MATH420. Credit only granted for: AMSC420 or MATH420.

The course will develop skills in data-driven mathematical modeling through individual and group projects. Emphasis will be placed on both analytical and computational methods, and on effective oral and written presentation of results.

0101	Radu Balan TuTh 11:00am - 12:15pm	Seats (Total: 32) PHY 2214

AMSC460 **Computational Methods**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: CMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Tobias von Petersdorff MWF 2:00pm - 2:50pm	Seats (Total: 33) MTH 0103
0201	Stefan Doboszczak MWF 12:00pm - 12:50pm	Seats (Total: 36) JMZ 2206

0301	Deep Ray TuTh 11:00am - 12:15pm	Seats (Total: 33) PHY 0405
0401	Kayo Ide TuTh 2:00pm - 3:15pm	Seats (Total: 33) MTH 0106

AMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: CMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Abba Gumel TuTh 11:00am - 12:15pm	Seats (Total: 18) PHY 2213

AMSC498A **Selected Topics in Applied Mathematics**

(Perm req)

Topics in applied mathematics of special interest to advanced undergraduate students.

Contact department for information to register for this course.

AMSC661 **Scientific Computing II**

Prerequisite: Must have knowledge of Matlab or Python. Must have basic knowledge of ordinary and partial differential equations (MATH246 and MATH462 or equivalent, or permission of instructor). Cross-listed with: CMSC661. Credit only granted for: AMSC661 or CMSC661.

Numerical methods for solving ordinary and partial differential equations (elliptic, parabolic, hyperbolic, and dispersive): motivation, analysis, and implementation. Finite difference methods, finite element methods, Fourier and Chebyshev spectral methods, and meshless methods.

0101	Maria Cameron TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH 0106

AMSC663 **Advanced Scientific Computing I**

Prerequisite: AMSC660 or CMSC660; and (AMSC661 or CMSC661). Restriction: Permission of instructor. Cross-listed with: CMSC663. Credit only granted for: AMSC663 or CMSC663.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (CMSC663/CMSC663 and AMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Maria Cameron	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH 0302

AMSC674 **Partial Differential Equations II**

Prerequisite: MATH673 or AMSC673; or permission of instructor. Cross-listed with: MATH674. Credit only granted for: AMSC674 or MATH674.

Boundary value problems for elliptic partial differential equations via operator-theoretic methods. Hilbert spaces of functions. Duality, weak convergence. Sobolev spaces. Spectral theory of compact operators. Eigenfunction expansions.

Offered Spring only.

0101	Sandra Cerrai	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 0409

AMSC689 **Research Interactions in Applied Mathematics and Scientific Computation**

(Perm req)

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

AMSC760 **Applied Statistics Practicum**

(Perm req)

Prerequisite: Must have completed one year of graduate study in Applied Statistics. Restriction: Must have project proposal approved by SAC coordinator.

A semester long applied applied statistical project (a minimum 10 hours per week or 120 hours in total), in an internship of collaborative research-laboratory setting working on a substantive applied quantitative project with significant statistical content.

0101	Howard Elman	Seats (Total: 10)
	Contact instructor or department for details.	

AMSC762 **Data Analysis Project**

(Perm req)

Restriction: Permission of CMNS-Applied Mathematics department; and permission of instructor.

This course cannot be used to meet any of the Applied Statistics Area's seminar requirements. Offered yearly, required of and limited to MS non-thesis and doctoral students in Applied Statistics Area, for whom the resulting projects serve as a Qualifying Exam component. After 5-6 lectures or presentations on components of successful data analyses and write-ups, 3-4 sessions will discuss previous student project submissions. The culminating project, to be completed in a two week period between semesters, is an analysis and written report of one of three project choices made available each year to represent a spectrum of realistic applied statistical problems.

0101	Howard Elman	Seats (Total: 20)
	Contact instructor or department for details.	

AMSC764 **Advanced Numerical Optimization**

Prerequisite: MATH410; or permission of instructor. Cross-listed with C MSC764. Credit only granted for: AMSC607, AMSC764 or CMSC764. F ormerly: AMSC607.

Modern numerical methods for solving unconstrained and constrained nonlinear optimization problems in finite dimensions. Design of computational algorithms and the analysis of their properties.

0101	Thomas Goldstein	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	CHE 2110

AMSC799 **Master's Thesis Research**
Contact department for information to register for this course.

AMSC808A **Advanced Topics in Applied Mathematics**

Advanced topics of current interest.

Contact department for information to register for this course.

AMSC808X **Advanced Topics in Applied Mathematics; Machine Learning for Scientific Computing**

Advanced topics of current interest.

0101	Haizhao Yang	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	CSI 2107

AMSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

AMSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

AMST American Studies Spring 2024

AMST101 **Introduction American Studies**

Credit only granted for: AMST101 or AMST201. Formerly: AMST201.

Introduces students to the interdisciplinary field of American Studies by examining concepts such as culture, identity, cultural practices, and globalization, as well as theories underlying these concepts. Engages key themes, especially constructions of difference and identity, cultures of everyday life, and America and the world.

0101	Perla Guerrero MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 15) TWS 1310 TWS 0134	Discussion
0102	Perla Guerrero MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) TWS 1310 TWS 0134	Discussion
0103	Perla Guerrero MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 15) TWS 1310 TWS 0328	Discussion
0104	Perla Guerrero MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) TWS 1310 TWS 0328	Discussion

AMST202 **Cultures of Everyday Life in America**

Examine the structures and patterns of everyday life in the U.S., utilizing methods such as ethnography, oral history, survey research, and textual, visual, and material cultural analysis.

0101	Melodie Jackson TuTh 12:30pm - 1:45pm	Seats (Total: 25) ONLINE	

AMST203 **Popular Culture in America**

An introduction to American popular culture, its historical development, and its role as a reflection of and influence on our culture and society.

0101	Kristine Li Puma TuTh 11:00am - 12:15pm	Seats (Total: 25) ONLINE	

AMST205 **Material Aspects of American Life**

Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

0101	Mateo Arango TuTh 9:30am - 10:45am	Seats (Total: 25) TWS 0328	

AMST210 **Introduction to Ethnography**

A qualitative research method course used to study social worlds communities, cultures, institutions, and other social groups from the perspectives of the people who inhabit those social worlds. Ethnographic research involves understanding cultural traditions from an insider's perspective by studying the everyday lives of people steeped in those traditions.

0101	Asim Ali	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0330

AMST213 **Heroes and Villains in American Film**

Cross-listed with: CINE282. Credit only granted for: AMST213, HONR219F, CINE282 or FILM298V. Formerly: HONR219F, FILM298V.

We will examine the complex, changing, and ever-present representations of heroes and villains in American film. Beginning with a foundational understanding of how heroes and, conversely, villains have been defined through classic Hollywood film, we will explore how these definitions have shifted throughout the 20th and 21st century in various narrative genres, including westerns, war films, film noir, fantasy, science fiction, and, of course, superhero movies. In particular, we will be focusing on how the hero and villain maintain or disrupt specific cultural ideologies concerning race/ethnicity, gender, sexuality, and ability. This course will examine how these various ideologies have evolved throughout the 20th and 21st century, impacting the ways in which heroes and villains are both represented in American film and perceived by diverse audiences. Finally, we will examine our own complicated and sometimes troubling identification with these heroes, even when they might stand in stark contrast to our cultural values and identities.

0101	Susan Pramschufer	Seats (Total: 35)
	TuTh 9:30am - 10:45am	TWS 0223

AMST260 **American Culture in the Information Age**

Credit only granted for: AMST260 or AMST298I. Formerly: AMST298I.

Examines the ways in which content and form of public information interact with the culture, families & individuals.

0101	Porter Olsen	Seats (Total: 60)
	TuTh 3:30pm - 4:45pm	ESJ 2309

AMST298C **Introduction to Asian American Studies**

Cross-listed with: AAST200. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Julie Park TuTh 2:00pm - 3:15pm	Seats (Total: 40) TWS 0236
0201	Binod Paudyal TuTh 11:00am - 12:15pm	Seats (Total: 40) ASY 1213

AMST298Q **U.S. Latinx Literature and Culture**

Cross-listed with: ENGL235. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

0101	Andrea Knowles MWF 11:00am - 11:50am	Seats (Total: 30) TWS 0214

AMST324 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Cross-listed with: AAST394, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Joan Hong MW 3:00pm - 4:15pm	Seats (Total: 30) TWS 1107

AMST328P **Perspectives on Identity and Culture; Colonialism, Science Fiction, and Indigenous Futures**

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Students will explore what Indigenous futures might look like through the lens of science fiction and other forms of speculative genres. They will also engage with how the dominant culture tends to imagine the future and in what ways Indigenous peoples are part of or not part of that future. Students will examine objects in popular culture including movies, TV shows, music videos, and video games alongside academic texts to think about Indigenous futures and colonialism from a variety of perspectives.

0101	Bayley Marquez MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 0134

AMST328U **Perspectives on Identity and Culture; African American Literature**

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398C and ENGL317. Credit granted for AASP398C, AMST328U, or ENGL317.

0101	Julius Fleming MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 1106

AMST386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-American Studies department; and junior standing or higher.

1501	Jamila Moore-Pewu Contact instructor or department for details.	Seats (Total: 5)

AMST388 **Honors Thesis**

(Perm req)

Individual research, thesis and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

AMST398 **Independent Studies**

(Perm req)

Provides the student with the opportunity to pursue independent, interdisciplinary research and reading in specific areas of American culture studies.

Contact department for information to register for this course.

AMST418H **Cultural Themes in America; Cultural Themes in America-Honors**

(Perm req)

Examination of structure and development of American culture through themes such as "growing up American," "culture and mental disorders," "race," "ethnicity," "regionalism," "landscape," and "humor."

Prerequisite: At least three credit hours of prior coursework in AMST.

Contact department for information to register for this course.

AMST418K **Film and American Landscape**

Explores how representations of various geographic spaces in American film impact our understanding of community, identity, and place. In particular, we will think about how these spaces are culturally produced and changeable rather than static. The same space can hold diverse meanings for various groups of people and how such a space is represented in film is often wrapped up with issues of power, the reinforcement of stereotypes, and the creation of self/other dichotomies. By analyzing a variety of narrative, documentary, major studio, and independent films, we will seek to understand how American films' representations of rural, urban, and suburban spaces both reflect, contradict, and often influence our lived experiences of these spaces; in other words, this course will examine how the "reel" intersects with the "real".

0101	Susan Pramschufer	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PLS 1113

AMST418N **Asian American Public Policy**

Cross-listed with: AAST421. Credit only granted for: AAST421, AAST498M or AMST418N. Formerly: AAST498M.

Using Asian Pacific Americans as a case study, this course will analyze the development of public policy in America. Each week, topics such as community development, voting rights, and the movement to redress the wartime internment of Japanese Americans will serve as backdrops for discussion. We will explore the policy-making roles of legislators, judges, local and national political leaders, journalists, writers, unions, social movements, and community organizations.

Cross-listed with AAST421. Credit only granted for AAST421 or AMST418N. Using Asian Pacific Americans as a case study, this course will analyze the development of public policy in America. Each week, topics such as community development, voting rights, and the movement to redress the wartime internment of Japanese Americans will serve as backdrops for discussion. We will explore the policy-making roles of legislators, judges, local and national political leaders, journalists, writers, unions, social movements, and community organizations.

0101	Philip Nash	Seats (Total: 20)
	M 5:00pm - 7:30pm	SQH 1119

AMST450 **Seminar in American Studies**

(Perm req)

Prerequisite: AMST201 and AMST340; and 1 course in AMST. Restriction: Senior standing; and must be in American Studies program.

Developments in theories and methods of American Studies scholarship, with emphasis upon interaction between the humanities and the social sciences in the process of cultural analysis and evaluation.

0101	Asim Ali	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	TWS 0330

AMST498G **Special Topics in American Studies; Latina/os on the Silver Screen**

Topics of special interest.

Cross-listed with USLT498A. Credit only granted for USLT498A,USLT420, or AMST498G. Combining media theory and film history, this course considers the film industry s representation of Latines from the silent era to the present day. To begin, we examine mainstream images created by white Hollywood filmmakers during the twentieth century; the latter part of the course turns attention to self-representations in more recent cinema created by Latine cultural producers.

0101	Robert Chester	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 0134

AMST498P **Special Topics in American Studies; Race and Nation in Cinema**

Topics of special interest.

Cross-listed with USLT480. Credit only granted for USLT498C, USLT480 or AMST498P. Explores a century of representations of race and racism in US cinema, both via Hollywood s studio system and through more marginali (independent) productions. We examine film and identity through multiple methodological lenses, including film history, formalist critique, audiereception analysis, and film and media theory. Our focus will be the politics and poetics of racial exclusion and inclusion, power and resistance, and integration and separatism in shaping and defining the national imagined community.

0101	Robert Chester	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0134

AMST603 **Current Approaches to American Studies**

Restriction: Must be in one of the following programs (American Studies (Master's); American Studies (Doctoral)) . Or permission of ARHU-American Studies department; and permission of instructor.

Builds on AMST601 and explores contemporary literature, theory, and intellectual issues in American Studies.

0101	Bayley Marquez	Seats (Total: 15)
	W 4:00pm - 6:40pm	TWS 0328

AMST628P **Seminar in American Studies; Race Sex Power in the City**

This class looks at how the social construction of the so-called normal has shaped academic and professionalized approaches to the U.S. city, and how social collectives have organized in response. Although interdisciplinary, the class focuses on the history of the entwined regulation of race, gender, and sexuality throughout the twentieth century, and is anchored in the literature of African American, queer, and urban studies.

0101	Christina Hanhardt	Seats (Total: 20)	
	Tu 3:00pm - 5:40pm	TWS 0134	

AMST655 **Introduction to Museum Scholarship**

Cross-listed with: ANTH655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 5:30pm - 7:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

AMST698 **Directed Readings in American Studies**

(Perm req)

This course is designed to provide students with the opportunity to pursue independent, interdisciplinary research and reading in specific aspects of American culture under the supervision of a faculty member.

Contact department for information to register for this course.

AMST798 **Non-Thesis Research**
Contact department for information to register for this course.

AMST799 **Master's Thesis Research**
Contact department for information to register for this course.

AMST856 **Museum Research Seminar**

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: ANTH856, HIST810, INST786. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

Additional Note: Cross-listed with ANTH856, HIST810, INST728U. For the Spring 2101 semester, Credit only granted for: AMST856, ANTH856, HIST810 OR INST728U.

0101	Jamila Moore-Pewu Th 4:00pm - 5:45pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE	 Discussion

AMST857 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: ANTH857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 15)

AMST878A **American Studies Pedagogy Mentoring; Mentoring for First Year Teaching in American Studies**

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	La Marr Bruce Contact instructor or department for details.	Seats (Total: 5)

AMST878B **American Studies Pedagogy Mentoring; Mentoring for Second Year Teaching in American Studies**

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	La Marr Bruce Contact instructor or department for details.	Seats (Total: 5)

AMST878C **American Studies Pedagogy Mentoring; Mentoring for Third Year Teaching in American Studies**

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

0101	La Marr Bruce Contact instructor or department for details.	Seats (Total: 5)

AMST898 **Pre-Candidacy Research**

Contact department for information to register for this course.

AMST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ANSC Animal Science Spring 2024

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

ANSC101 **Principles of Animal Science**

A comprehensive overview of the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. The role of science in modern food production using animals will be emphasized.

0101	Kristina Mayo MWF 1:00pm - 1:50pm	Seats (Total: 78) ESJ 2212

ANSC103 **Principles of Animal Science Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in ANSC101. Restriction: Must be in one of the following programs (Environmental Sci & Pol-Environment & Agriculture; Agricultural and Veterinary Medicine; Agricultural Science and Technology) ; or must be in a major within the AGNR-Animal & Avian Sciences department; or permission of department required for students in other College of AGNR programs.

Laboratory focusing on the application of biology in the care and use of animals that live in close association with humans including livestock and companion animals. Labs will include live animals.

Students must pay a $50.00 laboratory materials fee.

0101	Kristina Mayo W 3:00pm - 4:50pm	Seats (Total: 20) ANS 1144
0102	Kristina Mayo Tu 2:00pm - 3:50pm	Seats (Total: 20) ANS 1144

ANSC105 **Horse Care Practicum**

(Perm req)

Restriction: Permission of the instructor. Credit only granted for: ANSC108 or ANSC105. Formerly: ANSC108.

This practicum course provides the opportunity for students to be involved in the routine care of the horses housed at the Campus Farm including grooming, feeding, turnout, first aid, record-keeping, and cleaning. Practical skills are supplemented with online learning.

0101	Rose Cardinal	Seats (Total: 30)
	Class time/details on ELMs Contact instructor or department for details.	ONLINE

ANSC115 **Careers in the Animal Sciences**

Prerequisite: ANSC101 and ANSC103.

Discussion of current employment opportunities in Animal Science, primarily by invited speakers. In addition, students will have the opportunity to prepare resumes and improve oral presentation skills while working with their peers.

0101	Victoria Pearlman	Seats (Total: 20)
	Tu 2:00pm - 3:15pm	ANS 0467

ANSC210 **Veterinary Terminology**

Prerequisite: ANSC204 and ANSC205. Restriction: Must be a major in Animal Sciences. Additional information: The course is offered on-line through a series of self-paced modules on ELMS.

Students will learn terminology related to the clinical practice of small and large animal medicine including medical record terminology and a systems-based consideration of common practices and pathologies.

0101	Kristina Mayo	Seats (Total: 80)
	Class time/details on ELMs	ONLINE

ANSC212 **Applied Animal Physiology**

Prerequisite: ANSC211; or (ANSC204 and ANSC205); or students who have taken courses with comparable content may contact the department.

The physiology of domesticated animals with emphasis on functions related to homeostasis, and the physiological adaptation to environmental influences.

0101	Monica VanKlompenberg	Seats (Total: 96)
	MWF 1:00pm - 1:50pm	ESJ 1202

ANSC214 **Applied Animal Physiology Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in ANSC212.

Application of physiological laboratory techniques to domestic and lab animals.

Students must pay a $50.00 lab materials fee.

0101	Monica VanKlompenberg M 2:00pm - 5:00pm	Seats (Total: 20) ANS 0108	Lab
0102	Monica VanKlompenberg Tu 9:00am - 11:50am	Seats (Total: 20) ANS 0108	Lab
0103	Monica VanKlompenberg W 2:00pm - 5:00pm	Seats (Total: 20) ANS 0108	Lab
0104	Monica VanKlompenberg Th 9:00am - 11:50am	Seats (Total: 20) ANS 0108	Lab

ANSC227 **Eating with Eyes Wide Open**

Are our diet and agricultural production methods sustainable? Students will investigate tensions created by trade-offs made by consumers relative to dietary choices which, in turn, can influence agricultural production methods. The course will inform students about their food supply so they can make informed dietary decisions and practice intentional/informed eating.

0101	R Apter MW 9:00am - 9:50am Tu 9:00am - 10:50am	Seats (Total: 20) ANS 0408 ANS 1144	Lab
0102	R Apter MW 9:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) ANS 0408 ANS 1144	Lab
0103	R Apter MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 20) ANS 0408 ANS 1144	Lab

ANSC237 **Equine Reproductive Management**

Prerequisite: ANSC232. Credit only granted for: ANSC237 or INAG233. Additional information: Course participation will include nightly checks of mares in the two weeks prior to parturition, and out-of-class time imprinting and working with newborn foals.

Students learn the fundamental skills necessary to manage an equine breeding herd including anatomy/physiology of genital tracts, estrus detection, manipulation of the estrous cycle, semen collection, pre- and post-foaling techniques, infertility, and health and nutrition of the mare, foal and stallion. Students will be required to spend ~ 30 hours during the spring semester caring for broodmares and foals and attending at least one foaling and estrous detection checks on broodmares outside of regularly scheduled class time.

Students must pay a $50.00 lab materials fee.

0101	Amy Burk MWF 12:00pm - 12:50pm	Seats (Total: 22) ANS 0402	

ANSC245 **Sheep Management**

Prerequisite: Minimum grade of C- in ANSC101 and ANSC103. Restriction: Must be in one of the following programs (Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC235 or ANSC245.

Popularly known as "Lamb Watch", this course provides an immersion environment for learning and understanding pre- and post-natal care of ewes and lambs through direct, hands-on involvement in the birthing process and care of the neonate through weaning on the campus farm. Course topics include zoonoses, basic reproductive physiology of the sheep, normal and abnormal parturition, management of lambs, qualitative assessment, breeding principles, nutrition, products and their marketing, and ram management.

Students must pay a $50.00 laboratory materials fee.

0101	Angela Black MW 3:00pm - 3:50pm M 1:00pm - 2:50pm	Seats (Total: 16) ANS 0412 ANS 1144	 Lab
0102	Angela Black MW 3:00pm - 3:50pm Th 1:00pm - 2:50pm	Seats (Total: 16) ANS 0412 ANS 1144	 Lab

ANSC250 **Companion Animal Care and Management**

Credit only granted for: ANSC250 and ANSC305. Formerly: ANSC305.

Care and management of the companion small animals. Species covered include the cat, dog, rodents, lagomorphs, reptiles, amphibians, birds and others as class interest and schedule dictate. Basic description, evolutionary development, breeding, nutritional and environmental requirements, and public health aspects will be presented for each species.

0101	Kristina Mayo MWF 11:00am - 11:50am	Seats (Total: 60) ANS 0408

ANSC262 **Commercial Poultry Management**

Prerequisite: ANSC101 and ANSC103.

Theory and science of rearing poultry and marketing poultry meat and eggs in the commercial sector. Includes current issues, organization of the industry, as well as fundamental biology of the domestic chicken. Students will help raise a flock of broiler chickens. Field trips to commercial poultry operations are required.

Students must pay a $50.00 laboratory materials fee.

0101	Monica VanKlompenberg, Sofia Egana Labrin, Sunoh Che MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 22) ANS 0402 ANS 1144	Lab

ANSC282 **Grazing Animal Management**

Prerequisite: ANSC101 and ANSC103; or permission of instructor. Credit only granted for: ANSC110, ANSC282, or INAG116. Formerly: ANSC110.

For students interested in acquiring knowledge and skills in pasture management, grazing management of livestock (large and small ruminants, horses), and hay production. Fundamental information regarding best management practices for soils, plants, and grazing livestock will be covered

0101	R Apter TuTh 11:00am - 12:15pm	Seats (Total: 33) ANS 1144	

ANSC315 **Applied Animal Nutrition**

Prerequisite: ANSC314.

Elements of nutrition, source characteristics and adaptability of various feedstuffs to several classes of livestock. A study of the composition of feeds, nutrient requirements and computerized formulation of economic diets and rations for livestock.

Students must pay a $50.00 lab materials fee.

0101	Richard Kohn TuTh 12:30pm - 1:45pm Th 8:00am - 8:50am	Seats (Total: 27) ANS 0408 ANS 1144	Discussion
0102	Richard Kohn TuTh 12:30pm - 1:45pm Th 9:00am - 9:50am	Seats (Total: 27) ANS 0408 ANS 1144	Discussion
0103	Richard Kohn TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) ANS 0408 ANS 1144	Discussion

ANSC327 **Molecular and Quantitative Animal Genetics**

Prerequisite: ANSC101, CHEM131, and ANSC103. And BSCI105; or (BSCI170 and BSCI171).

Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

0101	Iqbal Hamza	Seats (Total: 80)	
	TuTh 11:00am - 12:15pm	ANS 0408	

ANSC330 **Equine Science**

Prerequisite: ANSC232; or permission of instructor. Recommended: ANSC212 and ANSC211. Credit only granted for: ANSC230 or ANSC330. Formerly: ANSC230.

Scientific principles of horse behavior, anatomy, physiology, locomotion, nutrition, reproduction, growth, health and disease as applied to horses are emphasized.

Students must pay a $50.00 laboratory materials fee.

0101	Amy Burk	Seats (Total: 24)	
	MW 2:00pm - 2:50pm	ANS 0402	
	F 9:00am - 10:50am	ANS 1144	Lab

ANSC340 **Health Management of Animal Populations**

Prerequisite: BSCI223; and (ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262). Recommended: ANSC212. Credit only granted for: ANSC340 or ANSC412. Formerly: ANSC412.

A study of common and emerging animal diseases and their prevention and control. The main focus will be on livestock and poultry diseases. However, zoonotic, wildlife, and laboratory animal diseases will also be discussed along with risk assessment, bioterrorism counter-measures, and animal welfare, especially as these topics interface or impact animals used in food production.

0101	Andrew Broadbent	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ANS 0412

ANSC359 **Internship Experience in Animal and Avian Sciences**

(Perm req)

Experiential learning is a key component in an animal science education. Through the internship program, you will have the opportunity to develop your expertise in a specific species and discipline within the animal science curriculum. You will arrange an on- or off-campus internship experience related to animal science. You will spend a specified number of hours at the internship site each week and attend biweekly classroom sessions where we will discuss how the study of animal science fits into your specific internship experience as well as understand how to achieve each of the course learning outcomes.

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; and permission of instructor.

0101	Monica VanKlompenberg Tu 3:30pm - 5:30pm	Seats (Total: 22) ANS 0402

ANSC388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0701	Chad Stahl Contact instructor or department for details.	Seats (Total: 5)
2001	Lisa Taneyhill Contact instructor or department for details.	Seats (Total: 5)
2501	Richard Kohn Contact instructor or department for details.	Seats (Total: 5)
4501	Tom Porter Contact instructor or department for details.	Seats (Total: 5)
5201	Amy Burk Contact instructor or department for details.	Seats (Total: 5)
9102	Andrew Schiffmacher Contact instructor or department for details.	Seats (Total: 5)

ANSC389 **Experiential Learning**

(Perm req)

Contact department for information to register for this course.

ANSC399 **Special Problems in Animal Science**

(Perm req)

Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

Contact department for information to register for this course.

ANSC435 **Experimental Embryology**

Prerequisite: ANSC212. Recommended: Completion of one course in reproductive physiology is recommended. Credit only granted for: ANSC435 or ANSC489M. Formerly: ANSC489M.

Experimental approaches to mammalian embryology with emphasis on domestic livestock systems as applied to research and production systems. Lab will include hands-on experiments and demos of in vitro embryo production, embryo splitting, cell injection and nuclear transfer.

Students must pay a $50.00 lab materials fee.

0101	Andrew Schiffmacher	Seats (Total: 20)	
	Tu 2:00pm - 3:15pm	ANS 0108	
	Th 2:00pm - 5:00pm	ANS 0108	Lab

ANSC440 Zoonotic Diseases and Control

Prerequisite: BSCI223, ANSC212, ANSC327, BSCI222, BSCI421, or NFSC430; or students who have taken courses with comparable content may contact the department. Credit only granted for: ANSC440 or ANSC489R. Formerly: ANSC489R.

Global perspective of foodborne diseases common to animals and man, specifically those caused by farm animal-originated human pathogens (zoonoses) and their control. A selection of important zoonoses and food safety issues will be specifically covered with an emphasis on the principles of zoonotic disease transmission and control, risk factors to humans, and surveillance methods.

0101	Debabrata Biswas, Andrew Broadbent	Seats (Total: 32)
	TuTh 9:30am - 10:45am	ANS 0412

ANSC443 Physiology of Lactation

Prerequisite: ANSC212; and (CHEM231, PLSC275 or AGST275). Recommended: BCHM463.

A comprehensive survey of lactation in laboratory and domestic animals. Other species are discussed where possible. Emphasis will be placed on physiological aspects of milk synthesis and secretion and on the cellular and molecular biology of mammary gland development.

0101	Monica VanKlompenberg	Seats (Total: 22)
	MWF 9:00am - 9:50am	ANS 0402

ANSC445 Comparative Digestive Physiology

Prerequisite: ANSC212.

Comparative gastrointestinal physiology and the pathophysiology of diseases involved in animal-related research. A comparative approach will be presented for much of this material, using the human, canine, porcine, equine, bovine, and avian when information is available. The ultimate aim of the course is to provide a comprehensive knowledge of comparative gastrointestinal pathophysiology, and to give students an insight into the current field of human and veterinary gastroenterology. Students should feel more comfortable reading cutting edge literature by the end of the course, and should acquire a greater understanding of potential digestive disease areas for their future career such as graduate, medical, and veterinary students.

0101	Younggeon Jin	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ANS 0402

ANSC453 **Animal Welfare and Bioethics**

Prerequisite: ANSC101 and ANSC103; or BSCI106; or (BSCI160 and BSCI161); or permission of instructor. Restriction: Junior standing or higher.

Ethical concerns related to the use of animals in modern society. Historical and philosophical overview of animal welfare and bioethics. Applied ethical discussions on human/animal interrelationships, physical and genetic manipulation, and other current issues associated with the treatment of animals used in food production, research, zoos, and as pets.

0101	R Apter	Seats (Total: 60)
	MWF 1:00pm - 1:50pm	ANS 0408

ANSC624 **Recent Advances in Animal and Avian Sciences**

Restriction: Must be an Animal Sciences graduate student. Credit only granted for: ANSC698C or ANSC624. Formerly: ANSC698C.

Seminar course in advanced animal science research.

0101	Richard Kohn	Seats (Total: 30)
	Tu 3:30pm - 5:30pm	ANS 0408

ANSC627 **Molecular and Quantitative Genetics**

Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

0101	Iqbal Hamza	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	ANS 0408

ANSC660 **Poultry Literature**

Readings on individual topics are assigned. Written reports required. Methods of analysis and presentation of scientific material are discussed.

Contact department for information to register for this course.

ANSC688J **Special Topics; Zoonotic Diseases and Control**

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

Prerequisites: BSCI223; recommended NFSC430; or permission of instructor. Lectures will take a global perspective of foodborne diseases common to animals and man, specifically those caused by farm animal-originated human pathogens (zoonoses) and their control. A selection of important zoonoses and food safety issues will be specifically covered with an emphasis on the principles of zoonotic disease transmission and control, risk factors to humans, and surveillance mehtods.

0101	Debabrata Biswas, Andrew Broadbent	Seats (Total: 6)
	TuTh 9:30am - 10:45am	ANS 0412

ANSC688W **Special Topics; Advanced Animal Welfare**

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	R Apter	Seats (Total: 10)
	MWF 1:00pm - 1:50pm	Location: TBA

ANSC699 **Special Problems in Animal Science**

(Perm req)

Work assigned in proportion to amount of credit. Prerequisite: approval of staff. Problems will be assigned which relate specifically to the character of work the student is pursuing.

Contact department for information to register for this course.

ANSC799 **Master's Thesis Research**
Contact department for information to register for this course.

ANSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ANSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ANTH Anthropology Spring 2024

ANTH222 **Introduction to Ecological and Evolutionary Anthropology**

Credit only granted for: ANTH220 or ANTH222.

An introduction to the evolution of human physiology and human behavior, the relationship between hominid and non-hominid primates, and the study of relationships between a population of humans and their biophysical environment.

Students must pay a $40.00 lab materials fee.

0101	Miguel Vilar TuTh 9:30am - 10:45am M 8:00am - 10:00am	Seats (Total: 20) MMH 1400 WDS 0124B	 Lab
0102	Miguel Vilar TuTh 9:30am - 10:45am M 11:00am - 1:00pm	Seats (Total: 20) MMH 1400 WDS 0124C	 Lab
0103	Miguel Vilar TuTh 9:30am - 10:45am M 2:00pm - 4:00pm	Seats (Total: 20) MMH 1400 WDS 0124C	 Lab
0104	Miguel Vilar TuTh 9:30am - 10:45am W 8:00am - 10:00am	Seats (Total: 20) MMH 1400 WDS 0124C	 Lab
0105	Miguel Vilar TuTh 9:30am - 10:45am W 11:00am - 1:00pm	Seats (Total: 20) MMH 1400 WDS 0124C	 Lab
0106	Miguel Vilar TuTh 9:30am - 10:45am W 2:00pm - 4:00pm	Seats (Total: 20) MMH 1400 WDS 0124C	 Lab

ANTH240 **Introduction to Archaeology**

Exploration of the variety of past human societies and cultures through archaeology, from the emergence of anatomically modern humans to the more recent historical past.

0101	Mark Leone MWF 11:00am - 11:50am	Seats (Total: 30) WDS 1114	
0201	Stephen Brighton TuTh 9:30am - 10:20am F 12:00pm - 12:50pm	Seats (Total: 20) MCB 1207 WDS 1131	 Discussion

0202	Stephen Brighton TuTh 9:30am - 10:20am F 1:00pm - 1:50pm	Seats (Total: 20) MCB 1207 WDS 1131	Discussion
0203	Stephen Brighton TuTh 9:30am - 10:20am F 2:00pm - 2:50pm	Seats (Total: 20) MCB 1207 WDS 1131	Discussion

ANTH242 **Fire, Farming and Climate Change: An Archaeology Take on the History of Human Impacts on our Planet**

An examination of why climate changes, the methods for recording climate change, and case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems.

0201	Charles Walker MW 2:00pm - 3:15pm	Seats (Total: 30) TWS 0223	

ANTH260 **Introduction to Sociocultural Anthropology and Linguistics**

Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

0101	Laura Gilchrest MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) EGR 1202 WDS 1102	Discussion
0102	Laura Gilchrest MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) EGR 1202 WDS 1102	Discussion
0103	Laura Gilchrest MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) EGR 1202 WDS 1102	Discussion
0104	Laura Gilchrest MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) EGR 1202 WDS 1102	Discussion
0105	Laura Gilchrest MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) EGR 1202 WDS 1102	Discussion

0106	Laura Gilchrest MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 20) EGR 1202 WDS 1102	 Discussion

ANTH264 **Immigration Policy, Immigrant Lives**

Cross-listed with: IMMR219C. Credit only granted for: ANTH264 or IMMR219C.

An examination of the phenomenon of international migration, or immigration. Students develop awareness of how immigration has been framed in the general public and examined by social science disciplines, most prominently anthropology. Examination of case studies of different immigrant groups in distinct geographic contexts will illuminate the varied incorporation experiences of immigrants into U.S. society.

0101	Christina Getrich TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) MCB 1207 WDS 1131	 Discussion
0102	Christina Getrich TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) MCB 1207 WDS 1131	 Discussion
0103	Christina Getrich TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) MCB 1207 WDS 1131	 Discussion

ANTH265 **Anthropology of Global Health**

An overview of the growing field of global health including health care systems, medical practices, ideas about illness in cross-cultural contexts, issues of health development, global health inequity, and human rights issues. The course will focus on the history of global health, the critique of major international health agencies and their development paradigms, and the political economy of social inequalities and health.

0101	Laura Gilchrest MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 20) EGR 1202 SYM 0209	 Discussion
0102	Laura Gilchrest MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 20) EGR 1202 SYM 0209	 Discussion
0103	Laura Gilchrest MW 3:00pm - 3:50pm F 12:00pm - 12:50pm	Seats (Total: 20) EGR 1202 SYM 0209	 Discussion

0104	Laura Gilchrest MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 20) EGR 1202 KEY 0117	Discussion
0105	Laura Gilchrest MW 3:00pm - 3:50pm F 2:00pm - 2:50pm	Seats (Total: 20) EGR 1202 KEY 0117	Discussion
0106	Laura Gilchrest MW 3:00pm - 3:50pm F 3:00pm - 3:50pm	Seats (Total: 20) EGR 1202 KEY 0117	Discussion

ANTH298B **Special Topics in Anthropology; Selected Musical Cultures of the World**

Anthropological perspectives on selected topics of broad general interest.

Also offered as MUSC220. For Spring 2020; credit only granted for MUET220, MUSC220, or ANTH298B.

0101	Siv Lie MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0102	Siv Lie MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0103	Siv Lie MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0104	Siv Lie MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 15) SQH 1120 PAC 1809	Discussion
0105	Siv Lie MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 15) SQH 1120 PAC 1809	Discussion
0106	Siv Lie MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 15) SQH 1120 PAC 1809	Discussion

ANTH299A **Student Initiated Course; Introduction to Data Analytics for Anthropology**

Student Initiated Course (STIC) in Anthropology. Course is student initiated and taught under close supervision of a faculty mentor.

Students will learn the foundations of information technology, as well as the basics of the Python programming language and Structured Query Language. They will learn to tie these concepts together to manage and interpret large genetic data sets effectively.

0101	Miguel Vilar	Seats (Total: 12)
	Th 12:30pm - 1:45pm	WDS 0124B

ANTH310 **Method & Theory in Medical Anthropology and Global Health**

Prerequisite: ANTH210. Jointly offered with ANTH665. Credit only granted for: ANTH310, ANTH465, or ANTH665. Formerly: ANTH465.

Provides a critical perspective to global health that encompasses key political, economic, and cultural factors associated with the nature and magnitude of global health issues such as HIV/AIDS, tuberculosis and malaria, paying particular attention to how poverty and inequalities within and between societies has accelerated current global health challenges. Introduces students to how medical anthropologists have contributed to the debates surrounding the globalization of health.

Restriction: Must be in Anthropology program; or permission of BSOS Anthropology department.

0101	Matthew Thomann	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	WDS 1114

ANTH323 **Plagues, Pathogens and Public Policy**

Credit only granted for: ANTH429A or ANTH323. Formerly: ANTH429A.

The impact of diseases on populations from prehistoric times through the present will be examined, along with public perceptions of disease, scientific breakthroughs on treatment and prevention, and the ways that politics and public health policies can enhance or impede the advancement of disease treatment. The natural history of disease, population structure, and immunity will be discussed. The class will address emerging and re-emerging diseases and the ways that first responders, researchers, and policy makers may affect the outcome of an outbreak.

0101	Veronica Sousa	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	WDS 0104

ANTH341 **Introduction to Zooarchaeology**

Credit only granted for: ANTH298D, ANTH641 or ANTH341. Formerly: ANTH298D.

Zooarchaeology is the study of animal remains, especially bones, from archaeological contexts. This course will address both methodology as well as many of the main issues in contemporary zooarchaeology. Zooarchaeology stands at the intersection of a number of social and biological sciences, such as Biology, Osteology, Ecology, History, Anthropology and Economics. We will discuss basic animal osteology and the concepts and practices behind the identification of animal remains from archaeological contexts. We will cover the nature of the data in zooarchaeology, especially issues around using proxy data.

0101	George Hambrecht TuTh 12:30pm - 1:45pm	Seats (Total: 10) TLF 0104B

ANTH358A **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Archaeology**

(Perm req)

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358B **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Bio-Anthropology**

(Perm req)

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358C **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Cultural Anthropology**

(Perm req)

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH360 **Method and Theory in Sociocultural Anthropology**

Prerequisite: ANTH260. Restriction: Must be in Anthropology program; or permission of BSOS-Anthropology department.

Theoretical approaches and research methods in sociocultural anthropology. Emphasis on current debates, new directions, and their historical antecedents.

0101	Kathryn Lafrenz Samuels MW 11:30am - 12:45pm	Seats (Total: 20) SKN 1115

ANTH386 **Experiential Learning**

(Perm req)

Recommended: Completion of advanced courses in relevant subfield of anthropology recommended. Restriction: Permission of BSOS-Anthropology department; and junior standing or higher; and must be in Anthropology program.

Contact department for information to register for this course.

ANTH398A **Independent Study; Research Problems**

(Perm req)

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398B **Independent Study; Modern Tribes of Rome**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398C **Independent Study; The Mediterranean World**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398E **Independent Study; Bodies and Burials**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398H **Independent Study; Social Anthropology of Britain**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398I **Independent Study; Great Kingdoms of Ancient Near East**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398L **Independent Study; Social Anthropology of Britain**

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398N **Independent Study; Career Development for Anthropology Majors**

Independent interdisciplinary research and reading in specific areas of anthropology.

0101	Erik Hanson	Seats (Total: 15)
	Th 3:30pm - 4:45pm	WDS 1127

ANTH403 **Queer Anthropology**

An introduction to anthropological perspectives on non-normative genders and sexualities in transnational context. The focus on these identities and practices will involve ethnographic and theoretical examinations of how power and control are exerted on gender and sexuality in addition to how individuals and communities respond. The ways in which sexuality and gender intersect with class, nation, and race will be examined along with the effects of globalization, transnational mass media, as well as cross-border economies and activisms on local or "traditional" genders and sexualities. Ethnography will be used to illuminate important cultural and national differences between people and thus unsettle North Atlantic-centric approaches to gender, sexuality, and queer studies.

0101	Matthew Thomann	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	WDS 1114

ANTH416 **Anthropology of Global Violence**

Jointly offered with ANTH616. Credit only granted for: ANTH468O, ANTH66 8O, ANTH416 or ANTH616. Formerly: ANTH468O.

An examination of anthropological approaches to the study of violence, drawing from key texts to analyze how violence operates along a continuum: from routine, sometimes invisible forms of violence embedded in everyday life, to more overt and exceptional forms. Consideration of the role of ethnography in elucidating both the subjective experiences of violence and the ways in which violence is embedded in institutions, structures, and global political-economic processes. Analysis of the specific relationships between violence, health, mental health, and trauma in local and global contexts.

0101	Andrea Lopez	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	WDS 1114

ANTH436 **Norse Archaeology**

Credit only granted for: ANTH436 or ANTH636.

The archaeology of the Norse world from the 8th century through to the end of the 11th century. We will investigate the possible causes of the Norse expansion out of Scandinavia. The various settlements and colonies of Norse Russia, the Baltic, Britain, Ireland and the North Atlantic Islands (Orkney, the Shetlands, the Faroes, Iceland, Greenland and Newfoundland) will be examined. While we will look at the Norse in detail we will also attempt to put their raiding, trading, and settlements into a larger Eurasian context through a study of the archaeology of this period.

0101	George Hambrecht	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 1106

ANTH447 **Material Culture Studies in Archaeology**

Prerequisite: ANTH240. Credit only granted for: ANTH447, ANTH448C, ANTH647, or ANTH689C. Formerly: ANTH448C.

An in-depth introduction to the world of material culture studies with a focus on the methods and theories in historical archaeology. Students will look at archaeological data as historical documents, commodities and as symbols expressing ideas.

0101	Stephen Brighton	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	WDS 0104

ANTH448R **Special Topics in Archaeology; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Advanced topics in archaeological research, corresponding to new theoretical developments, faculty research interests, or specialties of visiting scholars. Prerequisites may vary with course topic; check with the department for requirements.

Cross-listed with ARCH478O, ARCH678O, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 10) ARC 1115

ANTH467 **Researching Environment and Culture**

Recommended: ANTH322, ANTH360, ENSP101, or ENSP102.

In this applied course, students use mixed methods to research a locally-based, environmental sustainability issue. Classroom time will be split between seminar discussions of theory, methods, and relevant case studies, and lab work focused on project development, data analysis, and report write up. Students are expected to spend additional time outside class on data collection, analysis, and writing

0101	L Jen Shaffer M 2:00pm - 4:45pm	Seats (Total: 25) WDS 0104

ANTH469J **Advanced Special Topics in Cultural Anthropology; Disaster Recovery in Japan**

Upper level cultural anthropology courses on varying topics derived from new interests of the faculty or the specialties of visiting scholars.

Contact department for information to register for this course.

ANTH476 **Senior Research**

(Perm req)

Restriction: Must be in Anthropology program. Credit only granted for: ANTH476 or ANTH486.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of a senior thesis in anthropology.

Contact department for information to register for this course.

ANTH477 **Senior Thesis**

(Perm req)

Prerequisite: ANTH476. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program. Credit only granted for: ANTH477 or ANTH487.

Capstone course in which students write a senior thesis on independent research into a current problem in anthropology. The thesis is defined before a committee of faculty.

Contact department for information to register for this course.

ANTH481 Environmental Ethnographies of Asia

Credit only granted for: ANTH481 or ANTH681.

Examines social and ecological environments in Asia through the lens of classic and contemporary ethnographies from across the continent. Considers how cultural, political and economic dynamics interact with ecological systems in both recurring and unexpected ways. Ethnographies include case studies of global commodity chains, technoscientific management, borders and migration, conservation, and local knowledge as they intersect with changing environments.

0101	Madeline Brown	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	WDS 0104

ANTH485 Honors Research Preparation

(Perm req)

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program.

Honors Research Preparation is an independent study course during which the Honors candidate will work with their Honors Thesis Advisor to establish not only the structure of the thesis and timeline, but also the formation of Thesis Review Committee.

Contact department for information to register for this course.

ANTH486 Honors Research

(Perm req)

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH486 or ANTH476.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of an honors thesis in anthropology.

Contact department for information to register for this course.

ANTH487 Honors Thesis

(Perm req)

Prerequisite: ANTH486. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH487 or ANTH477.

Capstone course in which students write a thesis on the results of independent research into a current problem in anthropology.

Contact department for information to register for this course.

ANTH603 **Queer Anthropology**

Jointly offered with: ANTH403. Credit only granted for: ANTH403 or ANTH603.

An introduction to anthropological perspectives on non-normative genders and sexualities in transnational context. The focus on these identities and practices will involve ethnographic and theoretical examinations of how power and control are exerted on gender and sexuality in addition to how individuals and communities respond. The ways in which sexuality and gender intersect with class, nation, and race will be examined along with the effects of globalization, transnational mass media, as well as cross-border economies and activisms on local or "traditional" genders and sexualities. Ethnography will be used to illuminate important cultural and national differences between people and thus unsettle North Atlantic-centric approaches to gender, sexuality, and queer studies.

0101	Matthew Thomann	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	WDS 1114

ANTH616 **Anthropology of Global Violence**

Credit only granted for: ANTH416 or ANTH616.

An examination of anthropological approaches to the study of violence, drawing from key texts to analyze how violence operates along a continuum: from routine, sometimes invisible forms of violence embedded in everyday life, to more overt and exceptional forms. Consideration of the role of ethnography in elucidating both the subjective experiences of violence and the ways in which violence is embedded in institutions, structures, and global political-economic processes. Analysis of the specific relationships between violence, health, mental health, and trauma in local and global contexts.

0101	Andrea Lopez	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	WDS 1114

ANTH630 **Quantification and Statistics in Applied Anthropology**

Restriction: Must be in one of the following programs (Anthropology (Doctoral); Anthropology (Master's)).

An intensive overview of key quantitative and statistical approaches used by social scientists in applied ad policy research. This includes nonparametric and parametric statistical approaches. Students utilize statistical software and analyze existing and student-created databases. Anthropological case studies are emphasized.

0101	Madeline Brown	Seats (Total: 20)
	Th 4:00pm - 6:45pm	WDS 1102

ANTH636 **Norse Archaeology**

Credit only granted for: ANTH436 or ANTH636.

The archaeology of the Norse world from the 8th century through to the end of the 11th century. We will investigate the possible causes of the Norse expansion out of Scandinavia. The various settlements and colonies of Norse Russia, the Baltic, Britain, Ireland and the North Atlantic Islands (Orkney, the Shetlands, the Faroes, Iceland, Greenland and Newfoundland) will be examined. While we will look at the Norse in detail we will also attempt to put their raiding, trading, and settlements into a larger Eurasian context through a study of the archaeology of this period.

0101	George Hambrecht	Seats (Total: 10)
	TuTh 9:30am - 10:45am	TWS 1106

ANTH641 **Introduction to Zooarchaeology**

Jointly offered with ANTH341. Credit only granted for: ANTH298D, ANTH34 1 or ANTH641.

Zooarchaeology is the study of animal remains, especially bones, from archaeological contexts. This course will address both methodology as well as many of the main issues in contemporary zooarchaeology. Zooarchaeology stands at the intersection of a number of social and biological sciences, such as Biology, Osteology, Ecology, History, Anthropology and Economics. We will discuss basic animal osteology and the concepts and practices behind the identification of animal remains from archaeological contexts. We will cover the nature of the data in zooarchaeology, especially issues around using proxy data.

0101	George Hambrecht	Seats (Total: 5)
	TuTh 12:30pm - 1:45pm	TLF 0104B

ANTH647 **Advanced Material Culture Studies in Archaeology**

Credit only granted for: ANTH447, ANTH448C, ANTH647, or ANTH689C. Formerly: ANTH689C.

An in-depth introduction to the world of material culture studies with a focus on the methods and theories in historical archaeology. Students will look at archaeological data as historical documents, commodities and as symbols expressing ideas.

0101	Stephen Brighton	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	WDS 0104

ANTH655 **Introduction to Museum Scholarship**

Cross-listed with: AMST655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 5:30pm - 7:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

ANTH665 **Method & Theory in Medical Anthropology and Global Health**

Credit only granted for: ANTH310, ANTH465 or ANTH665.

Provides a critical perspective to global health that encompasses key political, economic, and cultural factors associated with the nature and magnitude of global health issues such as HIV/AIDS, tuberculosis and malaria, paying particular attention to how poverty and inequalities within and between societies has accelerated current global health challenges. Introduces students to how medical anthropologists have contributed to the debates surrounding the globalization of health.

0101	Matthew Thomann	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	WDS 1114

ANTH681 **Environmental Ethnographies of Asia**

Jointly offered with: ANTH481. Credit only granted for: ANTH481 or ANTH681.

Examines social and ecological environments in Asia through the lens of classic and contemporary ethnographies from across the continent. Considers how cultural, political and economic dynamics interact with ecological systems in both recurring and unexpected ways. Ethnographies include case studies of global commodity chains, technoscientific management, borders and migration, conservation, and local knowledge as they intersect with changing environments.

0101	Madeline Brown	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	WDS 0104

ANTH688A **Current Developments in Anthropology**

(Perm req)

Detailed investigation of a current problem or research technique, the topic to be chosen in accordance with faculty interests and student needs.

Contact department for information to register for this course.

ANTH689A **Special Problems in Anthropology**

(Perm req)

Contact department for information to register for this course.

ANTH701 **Anthropology Internship Preparation**

Preparation for internship includes practicum training in development, presentation and evaluation of position papers, proposals and work plans; literature search and use of secondary data sources in decision making the effect cultural analysis and resource management; ethics and professional development for work in non-academic settings.

Contact department for information to register for this course.

ANTH712 **Anthropology Internship Analysis**

(Perm req)

Prerequisite: ANTH789.

The preparation and presentation of internship results, and the development of skills in report writing and presentation. Includes the completion of a professional quality report or publishable paper based on the internship experience.

Contact department for information to register for this course.

ANTH722 **Ecological Anthropology**

Restriction: Must be in one of the following programs (Anthropology (Doctoral); Anthropology (Master's)). Credit only granted for: ANTH720 or ANTH722.

An overview of important approaches to ecological anthropology. Population, systems, community, political, behavioral and evolutionary ecology will be examined as they have been applied to a range of anthropological questions. Complexity theory (nonlinear dynamics) and topics in game theory will also be addressed. Students will map the field of ecological anthropology and to assess the strengths and weaknesses of contemporary approaches, methods and theories.

0101	L Jen Shaffer	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	KEY 0125

ANTH740 **Theories of the Past and Accomplishments of Archaeology**

Credit only granted for: ANTH689P or ANTH740. Formerly: ANTH689P.

The primary purpose is to highlight some of the key achievements made by archaeologists in informing questions of interest to society from 1850 on. Key achievements include how archaeologists understand elements of the past thought to be central to the development of modern socieity. A secondary purpose is to introduce students to the theories used to understand the place of the past in society and the function of answers to questions thought central to modern social life.

0101	Mark Leone	Seats (Total: 20)
	M 1:00pm - 3:45pm	Location: TBA

ANTH745 **International Heritage Management**

Restriction: Must be in the Cultural and Heritage Resource Management Program; or by permission of the Anthropology department.

An examination of international heritage management practices and global ethical and professional norms in order to contextualize domestic cultural resource management in the US. The survey will also explore the linkages and areas for growth between international and domestic heritage practice.

PLA1	Joshua Samuels	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	
PLA2	Neil Silberman, Kathryn Lafrenz Samuels	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

ANTH746 Applied Archaeological Theory

Restriction: Must be in the Cultural and Heritage Resource Management Program; or by permission of the Anthropology department.

Does cultural and heritage resources management (CHRM) need theory? Can archeological theory help us understand CHRM conventions and configurations, and does CHRM have its own distinctive contribution to make to archaeological theory? This course explores these questions while surveying the key areas of theory that inform the work that CHRM practitioners do, and also the place of CHRM in cultural discourse.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	
PLA2	Matthew Palus	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE

ANTH749 Cultural and Heritage Resource Management Internship

An internship/practicum that would contribute to students' understanding of the overall process of CHRM. Students who are already working in CRM or a closely related field may use their employment as their practicum if the opportunity is available for them to learn beyond their current job duties.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE

ANTH788 **Internship Research**

(Perm req)

This course augments ANTH 789 and is graded in conjunction with it.

Contact department for information to register for this course.

ANTH789 **Internship**

(Perm req)

Individual instruction course supervised by a department faculty member.

Contact department for information to register for this course.

ANTH799 **Master's Thesis Research; Cultural and Heritage Resource Management Thesis**

PLA1	Matthew Palus	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	
PLA2	Matthew Palus	Seats (Total: 20)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

ANTH856 **Museum Research Seminar**

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: AMST856, HIST810, INST786. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

Additional Note: Cross-listed with ANTH856, HIST810, INST728U. For the Spring 2101 semester, Credit only granted for: AMST856, ANTH856, HIST810 OR INST728U.

0101	Jamila Moore-Pewu Th 4:00pm - 5:45pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE	Discussion

ANTH857 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 15)

ANTH898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ANTH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

AOSC Atmospheric and Oceanic Science Spring 2024

AOSC123 **Causes and Consequences of Global Change**

Cross-listed with: GEOL123. Credit only granted for: AOSC123, GEOG123, or GEOL123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 30) ATL 2324 PLS 1111	Discussion
0102	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 30) ATL 2324 PLS 1111	Discussion

0103	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1162	Discussion
0106	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion

AOSC200 **Weather and Climate**

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201.

What are weather and climate? Most people think they know but if you ask people to explain the differences and similarities you're bound to get a range of answers. Weather affects not just our daily activities but other important aspects of society such as transportation, commerce, security and agriculture. Most people understand what weather is to some extent. Climate and climate change are concepts that evoke strong emotional responses from people but are less well understood. In this class, students examine fundamental issues such as the greenhouse effect, severe weather, and global weather patterns and how they relate to a changing climate. Instruction in the lectures will provide the basic knowledge needed to understand these issues. In the discussion sections, students will be divided into groups to address the implications of these topics through group projects.

A Marquee Science and Technology Course designed for Non-Science Majors: http://www.marqueecourses.umd.edu/ Click here for more Marquee course information.*

0101	Alexandra Jones TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 30) ATL 2324 ATL 1114	Discussion
0102	Alexandra Jones TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 30) ATL 2324 ATL 2416	Discussion
0103	Alexandra Jones TuTh 12:30pm - 1:45pm W 4:00pm - 4:50pm	Seats (Total: 30) ATL 2324 ATL 2416	Discussion
0104	Alexandra Jones TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 JMZ 0103	Discussion
0201	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2416	Discussion

0202	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0203	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion
0204	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 ATL 2416	 Discussion

AOSC201 **Weather and Climate Laboratory**

Corequisite: AOSC200.

Laboratory exercises to supplement AOSC200, including weather observations, weather map analysis, forecasting practice and climate modeling.

Students must pay a $60.00 lab materials fee.

0101	Gillian Felton M 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	 Lab
0102	Siyu Shan W 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	 Lab
0103	Samantha Halstead Santez M 4:00pm - 6:00pm	Seats (Total: 26) ATL 3426	 Lab
0104	Samantha Halstead Santez M 12:00pm - 2:00pm	Seats (Total: 26) ATL 3426	 Lab
0105	Gillian Felton F 12:00pm - 2:00pm	Seats (Total: 26) ATL 3426	 Lab
0106	Vincent Ferrera F 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	 Lab
0107	Vincent Ferrera Tu 3:30pm - 5:30pm	Seats (Total: 26) ATL 3426	 Lab

0108	Siyu Shan	Seats (Total: 26)	
	W 12:00pm - 2:00pm	ATL 3426	Lab

AOSC247 **Scientific Programming: Python**

Prerequisite: MATH140. Recommended: Familiarity with basic descriptive statistics. Credit only granted for: AOSC458J or AOSC247. Formerly: AOSC458J.

A comprehensive introduction to scientific computation and visualization techniques with Python applied to data intensive questions in the Natural Sciences. The class emphasizes real-world applications, providing students with essential hands-on experience using Python for data analysis and visualization, developing analytical skills for observational and modeling data, and performing virtual experiments to distinguish data contributing factors. Students will gain an understanding of the scientific data issues including: signal vs noise, trend vs periodicity, mean vs extreme changes, and accuracy vs uncertainty. Students will gain extensive experience using command line linux. Skills including local and remote file transfer and synchronization, file and directory permission, utilities for diagnosing performance issues, and data compression.

Students must pay a $60.00 lab materials fee.

0101	Jeffrey Henrikson	Seats (Total: 50)
	MW 5:00pm - 6:15pm	ATL 2428

AOSC360 **How to solve the climate change problem?**

Prerequisite: MATH107, MATH113, or MATH115, or approval by instructor.

Climate change is the greatest challenge humanity faces in the 21st century. Global mean surface temperature has increased by 1.2C since the beginning of industrialization, driven by fossil fuel burning and land use change. The Intergovernmental Panel on Climate Change has proposed to limit global warming to within 1.5-2C, beyond which many tipping points in the Earth system would be reached and cause irreversible damages. This course will examine potential solutions to mitigate climate change.

0101	Ning Zeng	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	ATL 2428

AOSC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Earn academic credit for the time spent supporting an AOSC course in the Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

AOSC401 **Climate Dynamics and Earth System Science**

Prerequisite: AOSC400 or AOSC200; and MATH141; and (PHYS161 or PHYS171). Or permission of instructor.

Introduction of the earth and global climate systems and their major components: atmosphere, land, ocean, biosphere and cryosphere. Key processes governing the function of the earth's climate: Global energy balance and water cycle, climate dynamics (general circulation of the atmosphere and ocean) and climate physics (aerosol, cloud and rain), as well as climate variability and climate changes. Phenomena resulting from this coupled system including El Nino-Southern Oscillation, monsoons, and the hydrological cycle will be discussed, with a focus on how the Earth System responds to global warming.

0101	Emily Becker	Seats (Total: 30)
	MWF 11:00am - 11:50am	ATL 1114

AOSC421 **Oceanography of the Chesapeake and Mid-Atlantic**

This course introduces the oceanography of the Chesapeake Bay and Mid-Atlantic bight, with a focus on physical oceanographic processes, the impact of ocean circulation on the coastal and estuarine environment, and the future of our coast in a changing climate. This will include major topics in coastal oceanography such as the shelf circulation, waves and tides, estuarine circulation, and sea-level rise. In addition to lecture, students will read recent selections from the scientific literature, develop a report on an oceanographic issue relevant to Maryland coastal waters, and take part in a research cruise on the Chesapeake Bay.

0101	Jacob Wenegrat	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	ATL 2416

AOSC424 **Remote Sensing of the Atmosphere and Ocean**

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141); or permission of instructor.

Many of the properties of the atmosphere, ocean, and land surface are most easily observed from satellite remote sensing. This course will provide students with a hands-on introduction to a variety of passive and active sensing techniques and sensors observing our changing environment. Topics include: orbital dynamics and electromagnetic properties of the atmosphere and surface; atmospheric emission characteristics and scattering; chemical composition and spectroscopy; temperature retrievals; detection and retrieval of aerosol, cloud and rain; ocean surface properties; sea surface temperature and color; active sensing of wind stress, sea level, and internal waves; time-dependent gravity; properties of vegetation and ice.

0101	Zhanqing Li	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ATL 2416

AOSC432 **Dynamics of the Atmosphere and Ocean**

Prerequisite: AOSC431. Corequisite: MATH246. Credit only granted for: AOSC432 or AOSC632. Formerly: METO432.

Equations of motion and their approximation, scale analysis for the atmosphere and the ocean. Conservation properties. Fluid motion in the atmosphere and oceans. Geostrophic/balanced and ageostrphic/unbalanced motion. Circulation, vorticity, and potential vorticity. Introduction to the boundary layer.

0101	Kayo Ide TuTh 9:30am - 10:45am	Seats (Total: 30) ATL 2428
AM01	Kayo Ide TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2428

AOSC433 **Atmospheric Chemistry and Climate**

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with CHEM433. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633. Formerly: AOSC434.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 24) ATL 2428

AOSC434 **Air Pollution and Environmental Justice**

Prerequisite: CHEM131 and MATH241; or permission of instructor.

Basic concepts in physics and chemistry of the atmosphere as applied to air pollution and environmental justice. Production, transformation, spatial scales, transport, and removal of air pollutants. The problems of photochemical smog, the greenhouse effect & climate change, stratospheric ozone, visibility. Numerical simulation of air pollution. Health and environmental effects of air pollution in the developed and developing world; why some communities suffer disproportionately

0101	Russell Dickerson MWF 12:00pm - 12:50pm	Seats (Total: 30) ATL 2416

AOSC472 **Mesoscale Meteorology**

Prerequisite: AOSC432, AOSC600, AOSC610, or AOSC470. Restriction: Non-degree-seeking students require the permission of the instructor. Jointly offered with: AOSC602. Credit only granted for: AOSC472 or AOSC602.

Survey a broad range of mesoscale meteorological features with emphasis on convection and associated phenomena. Define the mesoscale and understand its underlying principles; Introduce non-convective circulations and their importance for weather forecasting; Understand the precursors and occurrence of deep moist convection.

0101	Jonathan Poterjoy MWF 10:00am - 10:50am	Seats (Total: 20) ATL 2416

AOSC494 **Atmospheric and Oceanic Science Seminar**

(Perm req)

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432. Restriction: Permission of the Atmospheric and Oceanic Science Department.

Exposure to a wide range of contemporary topics in atmospheric, oceanic, and climate sciences, to foster research interests and promote critical thinking through the weekly AOSC departmental seminar series.

0101	Alexandra Jones Th 3:30pm - 5:00pm	Seats (Total: 60) Location: TBA

AOSC498 **Senior Research Project II**

(Perm req)

The project will be based on the research or development plan created in AOSC493. It may be completed with the approval of a faculty advisor in conjunction with an internship. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

AOSC499 **Special Problems in Atmospheric Science**

Research or special study in the field of meteorology and the atmospheric and oceanic sciences.

Contact department for information to register for this course.

AOSC602 **Mesoscale Meteorology**

Survey a broad range of mesoscale meteorological features with emphasis on convection and associated phenomena. Define the mesoscale and understand its underlying principles; Introduce non-convective circulations and their importance for weather forecasting; Understand the precursors and occurrence of deep moist convection.

0101	Jonathan Poterjoy MWF 10:00am - 10:50am	Seats (Total: 10) ATL 2416

AOSC611 **Dynamics of the Atmosphere and Oceans II**

Waves and instabilities in the atmosphere and the ocean. Gravity, Rossby, coastal and equatorial waves. Flow over topography. Dynamic instabilities including barotropic, baroclinic, inertial, and instabilities of the coupled ocean-atmosphere system. Stationary waves and multiple equilibria.

0101	James Carton MWF 11:00am - 11:50am	Seats (Total: 25) ATL 2416
AM01	James Carton MWF 11:00am - 11:50am	Seats (Total: 1) ATL 2416

AOSC617 **Atmospheric and Oceanic Climate**

Prerequisite: AOSC610; or permission of instructor.

The general circulation of the atmosphere and oceans, historical perspective, observations, and conceptual models; wind-driven and thermohaline circulation of the oceans. Seasonal cycle and monsoon circulations; interannual to interdecadal climate variability; climate change.

0101	Sumant Nigam TuTh 11:00am - 12:15pm	Seats (Total: 25) ATL 2416
AM01	Sumant Nigam TuTh 11:00am - 12:15pm	Seats (Total: 1) ATL 2416

AOSC621 **Physics and Chemistry of the Atmosphere II**

Prerequisite: MATH462; or students who have taken courses with comparable content may contact the department.

Spectroscopy; basic concepts in radiative transfer and atmospheric chemistry; photolysis rates for atmospheric molecules.

0101	Zhanqing Li TuTh 2:00pm - 3:15pm	Seats (Total: 25) ATL 2416
AM01	Zhanqing Li TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2416

AOSC625 **Remote Inference of Atmospheric Properties by Satellite**

Fundamentals of radiative transfer concepts, theories and models pertinent to remote sensing. Satellite platforms, sensors and systems used for operation and research in atmospheric remote sensing. Concepts and technologies of passive and active remote sensing. Remote sensing methods and products of atmospheric constituents, aerosol, cloud, precipitation, temperature and water vapor profiles, precipitation in liquid and ice forms, radiation budget, and remote sensing application in data assimilation for numerical weather forecast (NWP); use of atmospheric remote sensing products for development of global climate model (GCM).

0101	Zhanqing Li TuTh 9:30am - 10:45am	Seats (Total: 10) ATL 2416

AOSC633 **Atmospheric Chemistry and Climate**

Prerequisite: CHEM131, CHEM135, or CHEM146. Cross-listed with: CHEM633. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 3) ATL 2428
AM01	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2428

AOSC650 **NEURAL NETWORKS FOR THE PHYSICAL SCIENCES**

Recommended: It is strongly recommended that graduate students registering for this course have a background in linear algebra, differential calculus, statistics, and proficiency in Python language software. These include courses like STAT 400, MATH 140, and AOSC 247.

The use of machine learning in the physical sciences has grown immensely over the last several years. While machine learning has been around for decades, recent advances in deep neural networks have contributed to the rapid growth of applications across many disciplines, including the physical sciences. However, many of the traditional benchmark datasets for the development of neural networks are not from the physical sciences, making the use of off-the-shelf machine learning methods not always feasible or practical for the physical sciences. In this course, we will learn the fundamentals of neural networks, from the basics of a neuron to more advanced architectures, and how these tools can be applied to the physical sciences. Important considerations for data preprocessing specific to the physical sciences will be discussed, along with how to evaluate the skill, uncertainty, and confidence of neural networks with specific relevance to the physical sciences.

0101	Maria Molina TuTh 12:30pm - 1:45pm	Seats (Total: 30) ATL 2416

AOSC798 **Directed Graduate Research**

Directed graduate research in atmospheric and oceanic science.

Contact department for information to register for this course.

AOSC898 **Pre-Candidacy Research**

Contact department for information to register for this course.

AOSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ARAB Arabic Spring 2024

ARAB101 **Elementary Arabic I**

Introduction to modern standard Arabic in both its spoken and written form. Equal emphasis on all four skill areas: speaking, listening, reading, and writing.

Contact department for information to register for this course.

ARAB105 **Elementary Modern Standard Arabic III-IV**

Prerequisite: ARAB104; or must have appropriate World Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Continuation of ARAB104, developing further linguistic proficiency in Standard Arabic, both written and formal spoken. Covers an extended range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.

0101	Samah Al-salami MWF 10:00am - 11:50am	Seats (Total: 15) HJP 2118
0201	Samah Al-salami MWF 12:00pm - 1:50pm	Seats (Total: 15) HJP 2118

ARAB205 **Intermediate Modern Standard Arabic II**

Prerequisite: ARAB204; or must have appropriate World Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Continuation of ARAB204, with exposure to a wide range of Arabic texts from different domains. Focus on vocabulary, more complex grammatical forms, and a better understanding of the formal aspects of using MSA as well as the cultural aspects of using the language.

0101	Lutf Alkebsi MWF 10:00am - 11:50am	Seats (Total: 15) HJP 3142

ARAB207 **Egyptian Colloquial Arabic II**

Prerequisite: ARAB206; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further develops communicative skills and cultural knowledge in Egyptian Arabic, extending range of contexts and types of social interaction. Focuses on various aspects of Egyptian popular culture.

0101	Ahmed Hanafy TuTh 12:30pm - 1:45pm	Seats (Total: 15) HJP 2118

ARAB305 **Advanced Modern Standard Arabic II**

Prerequisite: ARAB304; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further advanced grammar, reading, writing, speaking in Arabic; study of current issues within the Arab World.

0101	Lutf Alkebsi TuTh 2:00pm - 3:15pm	Seats (Total: 15) HJP 2118

ARAB386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor. Junior standing.

Contact department for information to register for this course.

ARAB398K **Special Topics in Arabic Studies; Key Moments in the History of the Middle East**

In-depth study of a particular aspect of Arabic culture, literature, and language. Specific topic to be announced when offered. Taught in Arabic.

Prerequisite: ARAB205. Taught in Arabic.

0101	Peter Glanville TuTh 11:00am - 12:15pm	Seats (Total: 15) HJP 2118

ARAB399 **Independent Study In Arabic**

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Contact department for information to register for this course.

ARAB399D **Independent Study In Arabic; Moroccan Arabic for Global Engagement**

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Prereq - ARAB105 Focus on Moroccan dialect of Arabic used for daily interaction and understanding different cultural contexts. Prepares students for global engagement with another culture.

0101	Ahmed Hanafy TuTh 9:30am - 10:45am	Seats (Total: 15) HJP 3142

ARAB399E **Independent Study In Arabic; The Language of the Quran and Hadith**

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Deepens understanding of the Quran and Hadith through focus on practical reading skills and discussion of content. Assumes basic reading ability in Arabic, perhaps gained through exposure to the Quran.

0101	Lutf Alkebsi MW 2:00pm - 3:15pm	Seats (Total: 15) HJP 2114	

ARAB499J **Special Topics in Arabic Studies; Islam in Africa and the African Diaspora**

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Cross-listed with AASP498U and HIST429F. Credit only granted for ARAB499J, AASP498U, or HIST429F. Taught in English.

0101	Rachel Schine MW 3:30pm - 4:45pm	Seats (Total: 30) HJP 2118	

ARAB499L **Special Topics in Arabic Studies; Social Issues in Contemporary Arab Societies**

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305. Engages students with pressing social issues in the contemporary Arab world: including language use and social identity; youth unemployment; citizenship, discrimination, and social cohesion; and the relationship between religion and politics. Taught in Arabic.

0101	Ahmed Hanafy MW 2:00pm - 3:15pm	Seats (Total: 15) HJP 2118	

ARCH Architecture Spring 2024

ARCH170 **Design Thinking and Architecture**

Examines conceptual, perceptual, behavioral, and technical aspects of the built environment, and methods of analysis, problem-solving, and design implementation.

0101	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) ASY 2309 ASY 3203	Discussion

0102	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) ASY 2309 ASY 3207	Discussion
0103	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 19) ASY 2309 ASY 3203	Discussion
0104	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 9:00am - 9:50am	Seats (Total: 15) ASY 2309 ASY 3207	Discussion
0105	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 12:00pm - 12:50pm	Seats (Total: 19) ASY 2309 ARC 1101	Discussion
0106	William Wyllie W 9:00am - 9:50am Contact instructor or department for details. F 12:00pm - 12:50pm	Seats (Total: 19) ASY 2309 ARC 1103	Discussion

ARCH200 **Design Media and Representation I**

(Perm req)

Restriction: Must be in a major in ARCH-Architecture Program.

Study of architectural representation in physical and digital design media. Examine visual literacy and visual communications through applied drawing, modeling and visual making to explore the role of design media and representation in design and design thinking.

0101	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 15) Location: TBA Location: TBA	Discussion
0102	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 15) Location: TBA Location: TBA	Discussion

0103	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 15) Location: TBA Location: TBA	 Discussion
0104	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 15) Location: TBA Location: TBA	 Discussion
0105	Michael Abrams W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 15) Location: TBA Location: TBA	 Discussion
0106	Michael Abrams W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 15) Location: TBA Location: TBA	 Discussion

ARCH201 **Elements and Principles of Architecture**

(Perm req)

Restriction: Must be in a major in ARCH-Architecture Program.

Survey of fundamental elements and principals of architecture and architectural education. Frames study of architecture as a profession, discipline and critical practice.

0101	Brian Kelly Tu 11:00am - 11:50am	Seats (Total: 105) Location: TBA

ARCH225 **History of World Architecture I**

Pre-1500 World Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and cultural production through architecture

0101	Joseph Williams TuTh 9:30am - 10:45am	Seats (Total: 125) ASY 2203

ARCH271 **People, Planet, and Profit: Building Sustainable Places**

Cross-listed with: RDEV250. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

Cross-listed with RDEV250. Credit granted for ARCH271 or RDEV250.

0101	Wayne Curtis TuTh 11:00am - 12:15pm	Seats (Total: 150) ARC 0204	

ARCH272 **Sustainability at College Park**

Explore the ways and the degrees to which University of Maryland, College Park campus master planning and operations incorporate principles of sustainability including smart growth, LEED and other building rating systems, higher education rating systems, sustainable agriculture and transportation planning. Among other subjects, students will learn about the Campus and the City of College Park and survey the relationship between local, national and global sustainability concerns. Students will learn about the University's Climate Action Plan and the roles, and extent to which, the UMD Office of Sustainability and other campus units are helping develop a carbon-neutral and resource-efficient campus infrastructure.

0101	Ralph Bennett Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 90) ARC 0204 TWS 0310	 Discussion

ARCH386 **Experiential Learning**

(Perm req)

Restriction: Must have learning proposal approved by faculty sponsor and student's internship sponsor; and sophomore standing or higher; and permission of ARCH-Architecture Program.

Learning experience tied to internship of specified duration with targeted learning outcomes.

0101	Kristen Stack Class time/details on ELMs	Seats (Total: 10) ONLINE

ARCH400 **Architecture Design Studio I**

(Perm req)

Restriction: Must be in a major in ARCH-Architecture Program; and permission of ARCH-Architecture Program.

Introduction to architectural design with particular emphasis on conventions and principles of architecture, visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses.

0101	Michael Abrams MWF 2:00pm - 5:20pm	Seats (Total: 15) Location: TBA
0201	Kenneth Filler MWF 9:00am - 12:20pm	Seats (Total: 15) ARC 0204

ARCH402 **Architecture Design Studio III**

(Perm req)

Prerequisite: Minimum grade of C- in ARCH401. Restriction: Must be in Architecture (B.S.) program.

Architectural design studio with emphasis on building and facade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical.

0101	Brittany L Williams MWF 2:00pm - 5:20pm	Seats (Total: 80) Location: TBA

ARCH405 **Graduate Architecture Design Studio II**

(Perm req)

Prerequisite: Minimum grade of C- in ARCH404. Restriction: Must be in Architecture (Master's) program.

Architectural design studio with emphasis on building and facade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical. Offered spring only.

0101	Julie Gabrielli MWF 2:00pm - 5:20pm	Seats (Total: 14) Location: TBA

ARCH407 **Graduate Architecture Design IV**

(Perm req)

Prerequisite: Minimum grade of C- in ARCH406. Restriction: Must be in Architecture (Master's) program.

Studio problems and theories concentrating on urbanism and urban design techniques. Issues and sites range from high-density urban in-fill to suburban and greenfield development in American and other contexts. Studio theories explore such topics as Contextualism, Neo-Traditional design, Transit Oriented Development, density, sustainable development, building typology, and street design.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Jana VanderGoot MWF 2:00pm - 5:20pm	Seats (Total: 12) Location: TBA

ARCH408 **Special Topics Architecture Design Studio**

(Perm req)

Design Studio course to examine topical problems in architecture and urban design.

0101	James Tilghman MWF 2:00pm - 5:20pm	Seats (Total: 15) Location: TBA
0102	Ronit Eisenbach MWF 2:00pm - 5:20pm	Seats (Total: 15) Location: TBA

ARCH408F **Special Topics Architecture Design Studio; Florence Architecture Design Studio**

Design Studio course to examine topical problems in architecture and urban design.

Contact department for information to register for this course.

ARCH418D **Selected Topics in Architectural Technology; The future of Sustainability:Human:centered Design, EmergingTechnologies, and Artificial Intelligence**

(Perm req)

Selected Topics in Architectural Technology

0101	Hooman Koliji F 9:00am - 11:50am	Seats (Total: 25) ASY 1213

ARCH419 **Independent Studies in Architectural Technology**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH420 **History of American Architecture**

(Perm req)

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture program.

American architecture from the late 17th to the 21st century.

0101	Caroline Hickman TuTh 11:00am - 12:15pm	Seats (Total: 30) ARC 1101

ARCH423 **History of Roman Architecture**

(Perm req)

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Survey of Roman architecture from 500 B.C. To A.D. 325.

0101	Joseph Williams TuTh 12:30pm - 1:45pm	Seats (Total: 30) ARC 1101

ARCH425 **History of Architecture I**

(Perm req)

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH225 or ARCH425. Additional information: Graduate architecture history course requires additional recitation section and additional coursework tied to survey lectures.

Pre-1500 World Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and cultural production through architecture. Structured to nurture critical thinking and visually literacy with regard to the worldwide legacy of architecture. The work in the course will involve the evaluation of sources and arguments in reading architectural history. Architecture will be framed relative to ways of thinking, religious beliefs, cultural heritage, and cultural values.

0101	Joseph Williams TuTh 9:30am - 10:45am	Seats (Total: 10) ASY 2203

ARCH427 **Theories of Architecture**

(Perm req)

Prerequisite: ARCH426; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Survey of architectural theories - theories of architectural design, representation and urban design from antiquity to the present day.

0101	Michael Ezban F 10:00am - 12:40pm	Seats (Total: 20) ARC 1127

ARCH428D **Selected Topics in Architectural History; Learning to Understand Washington**

(Perm req)

Selected Topics in Architectural History

0101	Cynthia Field TuTh 12:30pm - 1:45pm	Seats (Total: 25) ASY 1213

ARCH428F **Selected Topics in Architectural History; History of Modern Architecture**

(Perm req)

Selected Topics in Architectural History

0101	Sarah Rogers Morris WF 9:00am - 10:15am	Seats (Total: 20) ARC 1105

ARCH428H **Selected Topics in Architectural History; The Seven Wonders of Spain**

Selected Topics in Architectural History

Contact department for information to register for this course.

ARCH429 **Independent Studies in Architectural History**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH445 **Visual Analysis of Architecture**

(Perm req)

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Study of visual principles of architectural and urban precedents through graphic analysis. Exercises include on-site observation, documentation and analysis. Focuses on the development of an architect's sketchbook as a tool for life-long learning.

0101	Michael Ezban M 10:00am - 12:40pm	Seats (Total: 30) ARC 1105

ARCH448M **Selected Topics in Visual Studies in Architecture; Applied Model Making**

(Perm req)

Selected Topics in Visual Studies in Architecture

0101	Kenneth Filler TuTh 12:30pm - 1:45pm	Seats (Total: 20) Location: TBA

ARCH458B **Selected Topics in Urban Design; Urban Florence: Traveling Across Layers**

Selected Topics in Urban Design

Contact department for information to register for this course.

ARCH463 **Sustainable Systems in Architecture**

(Perm req)

Prerequisite: ARCH462. Restriction: Must be in a major in undergraduate or graduate ARCH program.

Sustainable systems in architecture examines the nature of the global problem, environmental economics, understanding the local environment, bioclimatic design, solar control and shading, solar access zoning, residential scale energy design issues, commercial scale energy design issues, and urban scale energy design issues.

0101	Michael Binder TuTh 3:30pm - 4:45pm	Seats (Total: 150) ARC 0204

ARCH465 **Architectural Structures II**

(Perm req)

Prerequisite: ARCH464 and PHYS121; and MATH120 or MATH140, or equivalent; or permission of the ARCH-Architecture Program. Restriction: Must be in either BS in Architecture or M. Architecture Program. Credit only granted for: ARCH412 or ARCH465.

The basic principles of elastic behavior for different materials such as wood, steel, concrete, and composite materials and compares the properties and applications of materials generally will be covered. It investigates cross sectional stress and strain behavior in flexure and in shear, and torsion as well as the stability of beams and columns. The qualitative behavior of combined stresses and fracture in materials is also covered.

0101	Michael Binder TuTh 11:00am - 12:15pm	Seats (Total: 80) TWS 0310

ARCH468P **Selected Topics in Architecture; Resume and Portfolio Design**

(Perm req)

Selected Topics in Architecture

0101	Hooman Koliji Tu 9:00am - 11:50am	Seats (Total: 25) JMZ 2206

ARCH472 **Building Information Modeling Communication and Collaboration**

(Perm req)

Restriction: Must be in a major in ARCH-Architecture Program; or must be in the Construction Project Management Minor. Credit only granted for: ARCH678I or ARCH472. Formerly: ARCH678I.

Building Information Modeling is explored as pertains to collaboration and communication in the design and construction of buildings and building systems. Practical and empirical learning using BIM software and case studies of real world projects and construction scenarios.

0101	Kiley Wilfong Cullen TuTh 1:30pm - 2:45pm	Seats (Total: 24) ARC 1115
0102	Andrew Lindberg TuTh 3:00pm - 4:15pm	Seats (Total: 24) ARC 1115

ARCH478B **Selected Topics in Architecture; Architecture in Italy: History and Preservation**

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478G **Selected Topics in Architecture; Landscape Architecture: The Villa and the Garden**

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478O **Selected Topics in Architecture; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Selected Topics in Architecture

Cross-listed with ARCH678O, ANTH448R, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 10) ARC 1115

ARCH478U **Selected Topics in Architecture; The Black Experience and The American Built Environment**

(Perm req)

Selected Topics in Architecture

0101	Marques King W 7:00pm - 9:40pm	Seats (Total: 25) ARC 1105

ARCH478X **Selected Topics in Architecture; Concepts and Methods in Architectural History**

(Perm req)

Selected Topics in Architecture

0101	Anatole Tchikine Th 4:00pm - 6:40pm	Seats (Total: 60) TWS 1100

ARCH479 **Independent Studies in Architecture**

(Perm req)

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

0101	Dawn Jourdan Contact instructor or department for details.	Seats (Total: 2)
0102	Debarati Majumdar Narayan Contact instructor or department for details.	Seats (Total: 1)

ARCH601 **Topical Design Studio VI**

(Perm req)

Restriction: Permission of ARCH-Architecture Program.

Topical architectural design studio with concentration on advanced topical inquiry addressing but not limited to: architectural competitions, sustainable design, theoretica/conceptual issues, programmatic, contextual, and/or technical issues.

Restricted to ARCH, URPD or ARCP majors.

0101	Peter Noonan MWF 2:00pm - 5:20pm	Seats (Total: 40) Location: TBA

ARCH628D **Selected Topics in Architectural History; Learning to Understand Washington**

(Perm req)

Graduate Selected Topics in Architectural History

0101	Cynthia Field TuTh 12:30pm - 1:45pm	Seats (Total: 5) ASY 1213

ARCH628U **Selected Topics in Architectural History; A survey of the history of Latin American Architecture and Urbanism in Context**

(Perm req)

Graduate Selected Topics in Architectural History

0101	Juan Burke TuTh 2:00pm - 3:15pm	Seats (Total: 15) ARC 1123

ARCH635 **Seminar in the History of Modern Architecture**

(Perm req)

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Advanced investigation of historical problems in modern architecture.

0101	Sarah Rogers Morris WF 9:00am - 10:15am	Seats (Total: 30) ARC 1105

ARCH654 **Urban Development and Design Theory**

(Perm req)

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program. Restriction: Permission of ARCH-Architecture Program.

Advanced investigation into the history, and practice of urban design, planning, and development.

0101	Juan Burke TuTh 9:30am - 10:45am	Seats (Total: 35) ESJ 2309

ARCH668P **Advanced Selected Topics in Architecture; Architecture:Resume and Portfolio Design**

(Perm req)

Graduate Selected Topics in Architecture.

0101	Hooman Koliji Tu 9:00am - 11:50am	Seats (Total: 5) JMZ 2206

ARCH678O **Advanced Selected Topics in Architecture; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Graduate Selected Topics in Architecture.

Cross-listed with ARCH478O, ANTH448R, ANTH632, and HISP619O. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 5) ARC 1115

ARCH678U **Advanced Selected Topics in Architecture; The Black Experience & The American Built Environment**

(Perm req)

Graduate Selected Topics in Architecture.

0101	Marques King W 7:00pm - 9:40pm	Seats (Total: 5) ARC 1105

ARCH679 **Advanced Independent Studies in Architecture; Independent Study in Architecture**

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH797 **Thesis Proseminar**

Prerequisite: ARCH601.

Directed research and preparation of thesis program.

0101	James Tilghman M 8:30am - 11:00am	Seats (Total: 15) ARC 1125

ARCH798 **Thesis in Architecture**

(Perm req)

Complements the research of ARCH 799, with presentation of the design research to student's thesis committee.

Contact department for information to register for this course.

ARCH799 **Master's Thesis Research**

Development of master's thesis.

Restricted to ARCH majors only.

Contact department for information to register for this course.

AREC Agricultural and Resource Economics Spring 2024

AREC210 **The Food Chain: What Happens As Your Food Goes From Farm to Table**

How can we feed a growing global population, reduce farming's environmental damage, and provide a healthier diet, all in the face of climate change? The course explores these global food system challenges in the context of the food supply chains that link farms, input providers, traders, food processors, retailers, consumers, and governments. We assess how supply chains are organized; how they use technologies; and how they can create organizations, develop new technologies, and adapt food production practices to meet these four major challenges facing the global food system.

0101	James MacDonald MWF 11:00am - 11:50am	Seats (Total: 80) MCB 1207	

AREC240 **Introduction to Economics and the Environment**

Credit only granted for: ECON200, AREC240, or AREC250 .

Costs and social impacts of pollution and human crowding in the modern environment. The economic, legal and institutional causes of these problems. Public policy approaches to solutions and the costs and benefits of alternative solutions.

0101	Roberton Williams TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 40) SYM 0200 HBK 0109	Discussion
0102	Roberton Williams TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 40) SYM 0200 HBK 0109	Discussion

AREC326 **Intermediate Applied Microeconomics**

Prerequisite: ECON200, AREC250, or AREC240; and ECON201. And MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326. Formerly: AREC489M.

Deepens and broadens your ability to apply rigorous economic analysis skills to a broad range of problems.

0101	Maria Soppelsa TuTh 2:00pm - 3:15pm	Seats (Total: 35) SYM 0215	

AREC345 **Global Poverty and Economic Development**

This interdisciplinary course explores social and economic development around the world. Topics include geography, democratization, political instability and conflict, health and education, agricultural development, micro-entrepreneurship, and an introduction to impact evaluation methods used to evaluate the efficacy of public policy aimed at alleviating poverty.

0101	Steven Jaffee TuTh 12:30pm - 1:45pm	Seats (Total: 60) TWS 0310

AREC365 **World Hunger, Population, and Food Supplies**

An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

0101	Ramakrishna Sharan Mamidipudi TuTh 2:00pm - 3:15pm	Seats (Total: 300) ESJ 0202

AREC386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of AGNR-Agricultural & Resource Economics department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

AREC388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

AREC399 **Special Problems**

Concentrated reading and study in some phase of a problem in agricultural and/or natural resource economics.

Contact department for information to register for this course.

AREC405 **Economics of Production**

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

The use and application of production economics in analysis of firm and policy decisions. Production functions, cost functions, multiple product and joint production, and production processes through time.

0101	Robert Chambers	Seats (Total: 35)
	TuTh 9:30am - 10:45am	SYM 0215

AREC422 **Econometric Analysis in Agricultural and Environmental Economics**

Prerequisite: 1 course from (AREC326 or ECON326); and 1 course from (ECON230, ECON321, or BMGT230). Credit only granted for: ECON422, ECON424, or AREC422.

This course offers a hands-on introduction to econometrics. Students will explore the linear regression model from the ground up by analyzing real-world datasets and learning how to distinguish causation from correlation. They will gain practical experience using econometrics to address important questions in agricultural economics and environmental economics.

0101	Billie Ray	Seats (Total: 35)
	MWF 2:00pm - 2:50pm	HBK 0103

AREC433 **Food and Agricultural Policy**

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

Economic and political context of governmental involvement in the farm and food sector. Historical programs and current policy issues. Analysis of economic effects of agricultural programs, their benefits and costs, and comparison of policy alternatives. Analyzes the interrelationship among international development, agricultural trade and general economic and domestic agricultural policies.

0101	James MacDonald	Seats (Total: 35)
	MWF 1:00pm - 1:50pm	SYM 0215

AREC435 **Commodity Futures and Options**

Prerequisite: AREC326; or ECON326; or students who have taken courses with comparable content may contact the department.

The economics and institutional features of commodity futures and options markets. Students will develop a basic understanding of the underlying price relationships between cash and futures markets and will apply this information to business risk management decision making.

0101	Dale Johnson	Seats (Total: 40)
	MW 3:30pm - 4:45pm	TYD 0101

AREC456 **Energy and Environmental Economics**

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON486. Credit only granted for: AREC456 or ECON486.

Economic theory and empirical methods are used to study problems of energy, the environment, and the economy. It examines the extraction, production, and use of energy and market institutions and regulatory approaches used to correct market failures. Topics covered include: oil and natural gas markets, management and design of electricity markets, renewable energy, non-market valuation , climate change, and transportation policies.

0101	Joshua Linn	Seats (Total: 80)	
	TuTh 12:30pm - 1:45pm	ATL 1113	

AREC481 **Environmental Economics**

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: ECON481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Roberton Williams	Seats (Total: 80)	
	TuTh 2:00pm - 3:15pm	SYM 0200	

AREC610 **Microeconomic Applications in Agricultural and Resource Markets**

Prerequisite: ECON603 and AREC620.

Applications of graduate level microeconomic analysis to the problems of agricultural and natural resource production and distribution including demand for agricultural output, the nature of agricultural supply decisions, decision making under uncertainty, valuation of natural resources, and exploitation of natural resources.

0101	Jorge Holzer Bilbao	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	SYM 0209	
	Tu 3:35pm - 5:05pm	SYM 0215	Discussion

AREC624 **Applied Econometrics II**

Prerequisite: AREC623.

Variations of the standard linear model, simultaneous equations estimation, nonlinear regression, nonlinear simultaneous equations estimation, static and dynamic panel data models, errors in variables, Hausman tests, discrete choice models such as conditional multinomial and mixed logit models, latent class models, semi-parametric estimation, varying parameter models, unobserved variables, time series models, and model selection procedures.

0101	Anna Alberini	Seats (Total: 30)	
	MW 10:00am - 12:30pm	SYM 0115	
	F 10:30am - 12:00pm	SYM 0115	Discussion

AREC699 **Special Problems in Agricultural and Resource Economics**

(Perm req)

Intensive study and analysis of specific problems in the field of agricultural and resource economics, providing in-depth information in areas of special interest to the student.

Contact department for information to register for this course.

AREC784 **Energy Economics, Empirical Industrial Organization, and Public Policy**

Prerequisite: ECON603, AREC623, and AREC624; or permission of instructor.

Energy markets and public policy, evaluating techniques for estimating market demand and supply and for evaluating policy intervention. Comparison of reduced-form and structural approaches. Applications may include but are not limited to electricity, oil and other liquid fuels, and household travel, with examples from the United States and other countries.

0101	Joshua Linn	Seats (Total: 25)
	MW 2:00pm - 3:15pm	SYM 0215

AREC799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

AREC845 **Environment and Development Economics**

Considers neoclassical and endogenous growth models; international trade theory; the role of property right institutions and factor markets; the environmental impact of trade liberalization in developing countries and the environmental effects of increasing international capital mobility; empirical studies relating the environment to growth and globalization; and policy analyses.

0101	Louis Preonas	Seats (Total: 25)
	MW 9:30am - 10:45am	SYM 2200B

AREC869B **Advanced Topics in Agricultural and Resource Economics; Applied Economic Decision-Making Under Uncertainty**

Frontiers of research in environmental and resource economics; agricultural policy, production, and trade; and development. Topics may include decision making under risk and related market institutions, principal agent analysis, optimal policy design, technology adoption, market structure, land and credit markets, information markets, and income distribution.

In this course, students will develop and study decision-making models in different uncertain decision environments. Problem areas considered will include: producer decisions under uncertainty in the face of active financial markets; climate change; food scares; and incomplete preference structures.

0101	Robert Chambers	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SYM 0209

AREC869D **Advanced Topics in Agricultural and Resource Economics; Political Economy of Development**

Frontiers of research in environmental and resource economics; agricultural policy, production, and trade; and development. Topics may include decision making under risk and related market institutions, principal agent analysis, optimal policy design, technology adoption, market structure, land and credit markets, information markets, and income distribution.

This course introduces key topics in political economy from the lens of empirical development economics. We will survey a broad cross-section of papers looking at how political economy of development has evolved over the past three decades. Students will be exposed to recent advances in empirical methods, including practical applications of field experiments and natural experiments.

0101	Ramakrishna Sharan Mamidipudi	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	SYM 0215

AREC898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

AREC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ARHU Arts and Humanities Spring 2024

ARHU158Q **Explorations in Arts and Humanities; The Power of Youth**

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Twenty-something influencers such as Kylie Jenner and Shawn Mendes use social media to reach their millions of followers and to help shape what they think about, talk about, and purchase. Former Parkland, Florida student David Hogg shows how young people can affect social change by advocating for stricter gun control laws on national media outlets. Starting with these examples and drawing from literature, politics, and gender and sexuality studies, we will analyze youth and its power in our culture.

0101	Robert Crane	Seats (Total: 25)
	MW 3:30pm - 4:45pm	KEY 0120

ARHU230 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Restriction: Permission of ARHU-English Department. Cross-listed with: ENGL254, HIST219N, WGSS230. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Mirella Vaglio MWF 2:00pm - 2:50pm	Seats (Total: 20) JMZ 1120
0201	Robert Lucci TuTh 9:30am - 10:45am	Seats (Total: 20) ONLINE

ARHU269V **Special Topics in Study Abroad II; Vienna and Budapest Field Study**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU275 **Scriptwriting for Theater, Film, and Television**

Cross-listed with: ENGL275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Anna Josephson MWF 10:00am - 10:50am	Seats (Total: 15) KEY 0120
0102	Anna Josephson MWF 10:00am - 10:50am *This section is restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0120

ARHU286 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Minimum cumulative GPA of 2.5; and must be in a major or minor in ARHU - College of Arts and Humanities.

Designed for students who are in their first semester at the University of Maryland and/or students who wish to complete legislative internships, some start-up internships and some remote internships. All students must be enrolled in an ARHU major or minor and the internship must be in one of the academic fields covered within the College of Arts and Humanities. In addition to completing their required hours on site, students will be required to attend three bi-weekly seminars at the beginning of the semester to help develop their para-professional goals and understandings.

0101	Jeffrey Kodis, Paula Nadler	Seats (Total: 10)
	Contact instructor or department for details.	

ARHU299M **Studies in Humanities Technology; Machine Learning in Language and Art**

Selected topics in the use of Information Technology in the Humanities.

Cross-listed with COMM298M and ENGL289G. Credit only granted for ARHU299M, COMM298M, or ENGL289G. How do language models like ChatGPT generate essays, poems, and stories? How do machine learning models learn to determine the author of a text, or identify the artist behind a painting? What makes language models like ChatGPT different from image generators like Stable Diffusion? And can language models be used to make music? We will teach you how to build models that read and write in natural languages, what makes those models different from applications of machine learning to visual art and music, how to use Python for data analysis and statistics, how to visualize data, and how to apply mathematical and statistical knowledge to practical problems in the digital humanities. No background in coding or statistics is required, but students with some programming or statistics experience are also very welcome in the course.

0101	Utku Turk, Omar Agha	Seats (Total: 20)
	TuTh 9:30am - 10:45am	KEY 0125

ARHU318A **Writers' House Colloquium: Creative Writing Across Languages and Cultures; TOTUS Spoken Word Colloquium**

(Perm req)

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

Restricted to Jimenez-Porter Writers' House Students. This class will meet every other Wednesday starting 1/24/24

0101	Naliyah Kaya	Seats (Total: 15)
	W 6:00pm - 8:00pm	SSU 1121

ARHU318B **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Prose Colloquium**

(Perm req)

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

Restricted to Jimenez-Porter Writers' House Students

0101	Oludolapo Demuren W 4:00pm - 5:15pm	Seats (Total: 15) JMZ 0118

ARHU318D **Writers' House Colloquium: Creative Writing Across Languages and Cultures; Multimedia Digital Storytelling**

(Perm req)

Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics for the different versions of ARHU 318 include poetry, fiction, writing for different media, autobiography and memoir, scriptwriting, screenwriting, and community engagement projects.

0101	Tayo Omisore W 7:00pm - 8:15pm	Seats (Total: 15) QAN 1132

ARHU320 **Writers' House Second Year Colloquium: Writing for Publication**

(Perm req)

Recommended: Completion of ARHU318 and ARHU319 recommended. Restriction: Currently enrolled in Writers' House or permission of program. Credit only granted for: ARHU319A or ARHU320. Formerly: ARHU319A.

Students write, discuss and revise for multiple forms of publication: reading their own work at least once in public, sending work out for publication to literary journals, and producing a chapbook of high quality by end of semester.

Restricted to Jimenez-Porter Writers' House students.

0101	Ross Angelella F 10:00am - 12:30pm	Seats (Total: 30) TWS 1107

ARHU338 **Undergraduate Teaching Assistantship in a Living Learning Program**

(Perm req)

Offers exceptional students the opportunity to work closely with a faculty member and gain valuable experience. ARHU Living learning program UTAs also serve as peer mentors and program leaders. They assist with course planning, research, and student advising (as appropriate). We are also allowing for variable credit (1-3 cr hrs).

0101	Ross Angelella Contact instructor or department for details.	Seats (Total: 5)
0102	Damien Pfister Contact instructor or department for details.	Seats (Total: 2)

ARHU380 **Arts & Humanities in Social Innovation, Change, and Justice: Do Good Now**

Cross-listed with: JWST319P. Credit only granted for: ARHU380, BSOS388B, JWST319P, or PLCY388D.

The course serves as the core course for the Arts-and-Humanities track in PLCY's minor in "Nonprofit Leadership and Social Innovation." Students will be introduced to the role that the Arts and Humanities can play in social innovation and social change, while exploring various mechanisms for achieving impact with a focus on advancing social justice, equity and systems change. This course deepens understandings of nonprofit leadership, entrepreneurship and social innovation by guiding students through the creation and implementation of social change projects and ventures of their choice.

Cross-listed with JWST319P. For Spring 2023: Credit granted only for JWST319P, ARHU380, BSOS388B, or PLCY388D.

0101	Lauren Kotkin W 6:00pm - 8:30pm	Seats (Total: 18) KEY 0100

ARHU386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Junior standing or higher.

0201	Paula Nadler, Jeffrey Kodis Contact instructor or department for details.	Seats (Total: 25)
0301	Susan Miller Contact instructor or department for details. *This section is restricted to students enrolled in the Arts Leadership Minor.*	Seats (Total: 5)
0401	Paula Nadler, Jeffrey Kodis Contact instructor or department for details. *This section is intended for students engaging in research-based internships.*	Seats (Total: 5)

ARHU440 **Arts Leadership Seminar**

Cross-listed with: TDPS440. Credit only granted for: TDPS440 or ARHU440.

An advanced seminar in arts leadership exposing students to the foundations of arts leadership in not-for-profit organizations as it intersects with current trends in technology, demographics, government policy, and the economy. In case studies based on examples drawn from local arts organizations, students will learn about audience engagement as well as institutional development terminology and best practices.

0101	Kate Keeney MW 12:30pm - 1:45pm	Seats (Total: 15) PAC 1815

ARHU458 **Graduate School Preparation**

Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

Restriction: Must have earned a minimum of 60 credits. Repeatable to 3 credits if content differs. Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

0101	Paula Nadler Contact instructor or department for details.	Seats (Total: 25)

ARHU468 **Peer Mentoring Program**

(Perm req)

A workshop for sophomore, junior or senior students who wish to serve as peer mentors helping first-year students to cope with the numerous issues which often arise in the transition to the university.

Restricted to ARHU upperclassmen who will serve as peer mentors to help transition new students to the university. Interested students must apply to become a peer mentor.

0101	Jessica Krenek M 4:00pm - 5:30pm	Seats (Total: 32) KEY 0100
0201	Jessica Krenek Class time/details on ELMs	Seats (Total: 5) ONLINE

ARHU486 **Internship Practicum in Arts and Humanities**

(Perm req)

Prerequisite: Have completed previous internship at U of MD. Restriction: Must be in a major in ARHU-College of Arts & Humanities; and permission of ARHU-College of Arts & Humanities; and minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits; and completed 12 credits at U of MD.

An internship intended for students who have already completed an internship for credit. ARHU486 must be a different experience from the internship students have already taken for credit. Generally students intern with a different company, but they may continue working for the same company if the job is significantly different. See ARHU internship coordinator for details.

0101	Jeffrey Kodis, Paula Nadler Contact instructor or department for details.	Seats (Total: 20)

ARHU489 **Advanced Internship Practicum in ARHU**

(Perm req)

Designed for students who have already completed at least 2 upper level internship courses for academic credit. It is an advanced practicum to assist students in continuing to develop and hone their professional writing, presentation and analytical skills.

0101	Paula Nadler	Seats (Total: 2)
	Contact instructor or department for details.	

ARMY Army Spring 2024

ARMY105 **Basic Military Science II**

Credit only granted for: ARMY119 or ARMY105.

Exploration of the Army Leadership Model through classroom instruction, leadership training and mentorship. Develops knowledge and competency in physical fitness through rigorous training and experiential leadership education through leadership laboratories.

0101	Adriana Tarrago, Daniel Fass	Seats (Total: 60)
	TuTh 9:30am - 10:45am	TYD 0102
0102	Adriana Tarrago, Daniel Fass	Seats (Total: 60)
	MWF 9:00am - 9:50am	SKN 0104

ARMY202 **Military Leadership in Practice**

This course uses the case study method to examine the Army Leadership Model as applied to assigned missions in U.S. history. Students learn to evaluate and assimilate effective leadership methods and techniques. Includes a laboratory period in which case studies are worked out and presented by individuals and groups.

0102	Donald Casey, Daniel Fass	Seats (Total: 60)
	TuTh 2:00pm - 3:15pm	SQH 1119

ARMY302 **Advanced Military Leadership II**

Prepares contracted students for certification at the Army National Advance Camp, a prerequisite for commissioning as an officer in the U.S. Army. Focus is directed to military tactics, squad and platoon drills, marksmanship, land navigation and fitness excellence. Includes a laboratory period in applied leadership skills as well as a three day field exercise.

0101	Daniel Fass	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	TYD 0111	
	Th 4:00pm - 6:00pm	ARM 0126	Lab
	MWF 6:30am - 7:30am	ARM 0126	Lab

ARMY402 **Advanced Military Leadership IV**

The military system and code of ethics in the military environment is studied. Topics include code of conduct during all forms of military operations, the Geneva Conventions and the ethical decision making process. Also includes a laboratory in applied leadership skills, fitness excellence and two field exercises.

0101	Daniel Fass	Seats (Total: 30)	
	TuTh 8:00am - 9:15am	HJP 2217	
	Th 4:00pm - 6:00pm	ARM 0135	Lab
	MWF 6:30am - 7:30am	ARM 0135	Lab

ARSC Air Science Spring 2024

ARSC059 Air Force Officer Lab

Offers Air Force ROTC cadet officer's practical experience in military leadership, management, organization, and customs. May include visits to military installations, weekend laboratories, and flight orientation.

Restriction: Must be an AFROTC cadet. Repeatable to 10 credits if content differs. Additional information: This course does not carry any credit toward any any degree at the University.

0101	Steven Cicchetto, Desirae Martins, Nathan Rabe	Seats (Total: 250)	
	Th 7:00am - 8:50am	ARM 0126	Lab
	Course meets in front of COL. Contact instructor for details.		

ARSC101 Heritage and Values II

Corequisite: AFROTC cadets must also register for ARSC059.

Freshman course for AFROTC. Continuation of ARSC100 for freshmen AFROTC cadets. Study of topics relating to the Air Forces and defense. Focuses on organizational structure and missions of the Air Force; officership and an introduction to both written and oral communication skills.

0101	Nathan Rabe	Seats (Total: 50)
	Tu 9:00am - 9:50am	TYD 2106
0102	Nathan Rabe	Seats (Total: 75)
	Th 9:00am - 9:50am	SYM 0200
0103	Nathan Rabe	Seats (Total: 70)
	Th 1:00pm - 1:50pm	TWS 1100
0104	Nathan Rabe	Seats (Total: 10)
	Contact instructor or department for details.	

ARSC201 Team and Leadership Fundamentals II

Corequisite: AFROTC cadets must also register for ARSC059.

Continuation of ARSC 200 for sophomore AFROTC cadets. The study of historical events, leaders, and technical developments which surrounded the growth of air power; the basics of leadership; environment of an Air Force officer; and concepts of ethical behavior.

0101	Desirae Martins Th 10:00am - 10:50am	Seats (Total: 49) HBK 0103
0102	Desirae Martins Th 2:00pm - 2:50pm	Seats (Total: 35) SKN 1115
0103	Desirae Martins Tu 10:00am - 10:50am	Seats (Total: 40) TYD 0111

ARSC301 **Leading People and Effective Communication II**

(Perm req)

Corequisite: AFROTC cadets must also register for ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Junior standing or higher.

Continuation of ARSC300. Study of leadership and management skills and leadership ethics as well as written and oral communication skills required of Air Force officers. This course will satisfy credit towards a minor in military studies.

0101	Steven Cicchetto Th 9:00am - 11:50am	Seats (Total: 45) JMZ 2206
0102	Steven Cicchetto TuTh 12:30pm - 1:50pm	Seats (Total: 20) CHE 2116

ARSC401 **National Security and Preparation for Active Duty II**

(Perm req)

Prerequisite: ARSC300 or ARSC301; or permission of UGST-AFROTC-Air Science. Corequisite: ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Senior standing.

This course examines various subjects including: military law/justice, preparation for active duty, and current issues affecting military professionalism. This course will satisfy credit towards a minor in military studies.

0101	Blake Harness Th 9:00am - 11:50am	Seats (Total: 30) WDS 0104

0102	Blake Harness TuTh 2:00pm - 3:30pm	Seats (Total: 15) EGR 1110	

ARTH Art History & Archaeology Spring 2024

ARTH169B **Special Topics in Study Abroad I; Arts of Modernity**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169I **Special Topics in Study Abroad I; Art of Rome**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH200 **Art and Society in Ancient and Medieval Europe and the Mediterranean**

Examines the material culture and visual expressions of Mediterranean and European societies from early times until ca. 1300 CE, emphasizing the political, social, and religious context of the works studied, the relationships of the works to the societies that created them, and the interrelationship of these societies.

0101	Emily Egan MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0102	Emily Egan MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion
0103	Emily Egan MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0104	Emily Egan MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 ASY 3211	Discussion

ARTH201 **Art and Society in the West from the Renaissance to the Present**

Examines representative European and American works of art from the later Middle Ages to the present, highlighting the dynamic exchange between artistic and cultural traditions both within periods and across time.

Contact department for information to register for this course.

ARTH260 **Art and Activism**

Can art effect social change? How may we use the history of radical and avant-garde art to inform present-day movements and models of artistic and creative activism? This course explores the modern and contemporary history of political art and arts activism on local, national, and global scales.

0101	Abigail McEwen TuTh 9:30am - 10:20am Tu 11:00am - 11:50am	Seats (Total: 25) TWS 0310 ASY 3211	 Discussion
0102	Abigail McEwen TuTh 9:30am - 10:20am Tu 12:30pm - 1:20pm	Seats (Total: 25) TWS 0310 ASY 3211	 Discussion
0103	Abigail McEwen TuTh 9:30am - 10:20am Th 11:00am - 11:50am	Seats (Total: 25) TWS 0310 ASY 3211	 Discussion
0104	Abigail McEwen TuTh 9:30am - 10:20am Th 12:30pm - 1:20pm	Seats (Total: 25) TWS 0310 ASY 3211	 Discussion

ARTH261 **Monuments, Monumentality, and the Art of Memorial**

Why do societies create monuments? And why do they preserve and destroy, change and remove them? How do monuments embody cultural values, shape historical narratives, and become sites of mourning and memory? This course investigates the political and cultural work of monuments across time and space, from the ancient world to European empires to the contemporary United States. The issues we consider include intercultural exchange and religious contexts, race and representation, and appropriation and iconoclasm.

0101	Tess Korobkin MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 ASY 3215	 Discussion
0102	Tess Korobkin MW 12:00pm - 12:50pm W 2:00pm - 2:50pm	Seats (Total: 25) ASY 2203 ASY 3211	 Discussion
0103	Tess Korobkin MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ASY 2203 ASY 3215	 Discussion
0104	Tess Korobkin MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 ASY 3211	 Discussion

ARTH269P **Special Topics in Study Abroad II; From Medieval to Contemporary: Exploring the Great Art and Architecture of Prague**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269R **Special Topics in Study Abroad II; Art of Renaissance**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH292 **Discovering Japan: How the Arts Shaped a Nation**

Explores the origins and creation of Japan from ancient to contemporary times through East Asian and European exchange. Acquaints students with painting, sculpture, architecture, ceramics, gardens, and other art forms in relation to the various cultural contexts within which they were produced and used.

0101	Alicia Volk TuTh 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 25) ASY 2203 EDU 1107	 Discussion
0102	Alicia Volk TuTh 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 25) ASY 2203 TWS 0207	 Discussion
0103	Alicia Volk TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 SQH 1105	 Discussion
0104	Alicia Volk TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 SQH 1105	 Discussion

ARTH301 **Aegean Art and Archaeology**

Sites and monuments of painting, sculpture, architecture, and the minor arts of Crete, the Cycladic islands, and the Greek mainland from the earliest times to the downfall of the Mycenaean empire.

0101	Emily Egan MW 2:00pm - 3:15pm	Seats (Total: 25) ASY 3215

ARTH303 **Roman Art and Archaeology**

Sites and monuments of painting, sculpture, architecture, and the minor arts from the earliest times through the third century A.D. with emphasis on the Italian peninsula from the Etruscan period through that of Imperial Rome.

Contact department for information to register for this course.

ARTH323 **Fifteenth-Century Italian Renaissance Art**

Painting, sculpture, architecture, and the decorative arts of the fifteenth century in Italy.

Contact department for information to register for this course.

ARTH324 **Leonardo's World: Art and Experience in Renaissance Italy**

Painting, sculpture, architecture, and the decorative arts of the sixteenth century in Italy.

0101	Aneta Georgievska-Shine TuTh 3:30pm - 4:45pm	Seats (Total: 25) ASY 3211

ARTH351 **Picturing Contemporary Life: Art Since 1945**

Visual art since 1945, with an emphasis on North America and Europe.

Contact department for information to register for this course.

ARTH357 **History of Photography**

Credit only granted for: ARTH357 or ARTH457.

An exploration of the historical, social, aesthetic, and technological developments of the photographic medium and its relationship to other modes of visual representation in the creation of the modern world.

0101	Alison Singer TuTh 11:00am - 12:15pm	Seats (Total: 25) ASY 3215

ARTH359C **Film as Art; Steven Soderbergh and Hollywood: Form, Business and History**

The study of film as a visual art, from theoretical, cultural and aesthetic perspectives. Content varies by semester.

Focus will be placed on the films of Steven Soderbergh and the reconsidering of film forms and media for storytelling within changing business and distribution models. Soderbergh is the focus because of his reworking ofgenres of film (German Expressionism, Film Noir, New Wave, Independent, Experimental, Art, Documentary, Melodrama, Dogma, Hollywood Blockbuster, the Remake), explorations of media (Television Drama, Reality Programming, Direct to Video, Film, Streaming) and professional roles (Writer, Director, Actor, Producer, Collaborator). Soderbergh's work will be considered in the context of his Independent film contemporaries.

0101	Greg Metcalf W 3:30pm - 7:00pm	Seats (Total: 25) ASY 4213A

ARTH361 **American Art from Civil War to Civil Rights**

Explores diverse artistic movements and makers in the United States, beginning at the end of the Civil War in 1865 and concluding with the art of Civil Rights era in the 20th century. We will ask how the visual arts construct and challenge formations of race, class, gender, and citizenship in the context of political transformations and social movements over a century of US history. This course emphasizes the practice of close looking as we encounter works art across a range of media--photography, painting, sculpture, film, material culture, performance art and public art.

0101	Alison Singer	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ASY 3215

ARTH369Q **Special Topics in Study Abroad III; Patrons and Artists in Baroque Italy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH376 **Living Art of Africa**

Art styles among the segmentary, centralized, and nomadic people of Africa. The iconography and function of their art and its relationship to their various societies, cults and ceremonies.

0101	Kevin Tervala	Seats (Total: 25)
	TuTh 8:00am - 9:15am	ASY 3215

ARTH386 **Experiential Learning**

Prerequisite: Permission of ARHU-Art History & Archaeology department. Restriction: Junior standing or higher.

Supervised internship experience in diverse areas of art historical, archaeological, and museological work.

Contact department for information to register for this course.

ARTH389U **Special Topics in Art History and Archaeology; Contemporary Art: Views from Asia**

From biennials, to fairs, to exhibitions in white-cube galleries, the same institutional forms of contemporary art are found all over the world. But does that mean that contemporary art is truly global? This course answers that question by examining the ways that art from Asia is exhibited, both in and outside of that region. Alongside this focus on exhibit ion, the course covers some of the key artistic movements and artists from countries in the region from 1989 to the present. The course does not offer a comprehensive view of this vast area of the world, but rather a survey of the field through the work of key scholars and critics and crucial events. Students learn to navigate the art world, at least digitally, which is a crucial set of skills for research on contemporary art. Students will complete an individual guided research project on a prominent artist from the region as well as a collaborative curatorial proposal.

0101	Karin Zitzewitz	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ASY 3215

ARTH391 **Transnational Chinese Cinema**

Cross-listed with: CINE335. Credit only granted for: ARTH391 or CINE335.

Chinese cinema has made a big impact on contemporary world film culture. This course will introduce students to the films directed by some of the most representative filmmakers working in different geopolitical locations (mainland China, Taiwan, Hong Kong) and the Chinese diaspora. The films of these directors, in a spectrum of genres, themes, and styles, have inspired global scholarship, not only in visual culture and cinema, but also in the study of women's issues, gender and ethnic studies, as well as the fields of adaptation and intermedia studies. Students will explore these films in their socio-historical and artistic contexts, considering the influences and innovations that have shaped them and analyzing their reception by audiences and critics. After reading about the films they view, and participating in class discussions, students will be ready to complete their analytical written assignments, for which they will critically examine the films by applying key concepts such as gender, sexuality, race, gaze, style, representation, power, diaspora, etc.

0101	Jason Kuo	Seats (Total: 25)
	M 1:00pm - 3:30pm	ASY 4213A

ARTH428C **Selected Topics in Art History; Visual Histories of the Black Atlantic**

(Perm req)

Advanced special topics in Art History.

Taking Paul Gilroy's conception of the "Black Atlantic" as our touchstone, this course explores visual and material histories of the Atlantic World in the long nineteenth century.

0101	Tess Korobkin	Seats (Total: 2)
	F 1:00pm - 3:30pm	ASY 4304

ARTH428E **Selected Topics in Art History; Nihonga and Neo-traditionalism: What is Japanese about Japanese Art?**

(Perm req)

Advanced special topics in Art History.

This course investigates modern dimensions of globality--globalism, modernism, colonialism, and imperialism, among others--through the lens of nihonga, the so-called native tradition within modern Japanese painting. We will consider how, in a global context based on uneven relations of power, generations of contemporary artists navigated conceptions of history and geography--as well as race and ethnicity--in their artworks, sometimes in response to Japan's unusual status as an empire on the periphery. Close attention will be paid to the materials and facture of objects as well as their reception by multiple audiences.

0101	Alicia Volk	Seats (Total: 2)
	Tu 1:30pm - 4:00pm	ASY 4304

ARTH428X **Selected Topics in Art History; The Nomadic Artist in the Chinese Diaspora**

(Perm req)

Advanced special topics in Art History.

Critical but contested concepts such as nation, migration, displacement, exile, homeland, mobility, transculturalization, citizenship, cosmopolitanism, and hybridity are investigated by studying nomadic, journeying, wandering artists in the Chinese diaspora in Southeast Asia,Oceania, and Euro-America. Artists to be studied include Ai Weiwei, Cai Guoqiang, Huang Yao, Kim Lim, Maya Lin, I. M. Pei, and Xu Bing.

0101	Jason Kuo Th 2:00pm - 4:30pm	Seats (Total: 2) ASY 4304

ARTH488O **Colloquium in Art History; Living, Lodging, Dwelling**

Colloquium to investigate a specific topic in depth.

Students will explore the different types of living spaces in early modern England, who lived in them, and how those people utilized the spaces they inhabited. We will also collect data on surviving Tudor houses and their preservation status.

0101	Elizabeth Honig TuTh 12:30pm - 1:45pm	Seats (Total: 14) ASY 4213A

ARTH488P **Colloquium in Art History; Tender Heroes: The Plight of Children in the Arts**

Colloquium to investigate a specific topic in depth.

This undergraduate colloquium addresses a pervasive and perhaps disturbing theme in the history of western European art: The portrayal of narratives in which an infant or a small child is threatened with harm or death but then is miraculously saved at the height of the drama. Recovered through humanistic research into classical art and literature, and likewise encountered in Judaeo-Christian scripture, this thematic paradigm was especially common in 17th- through 19th -century Europe, and is still reflected in today's popular media including television and film. Colloquium participants will explore this theme, surveying its elaboration in the visual and literary arts, and developing theories about its origin, affective power and contextual purposes.

0101	Anthony Colantuono F 1:00pm - 3:30pm	Seats (Total: 14) ASY 3217

ARTH498 **Directed Studies in Art History I**

(Perm req)

Contact department for information to register for this course.

ARTH499 **Honors Thesis**

(Perm req)

Contact department for information to register for this course.

ARTH698 **Teaching Art History**

(Perm req)

Allows students to explore pedagogical tools and methods in the history of art and archaeology, with a goal to becoming better instructors in the field. Starting with the basics of being a good TA (discussion of texts, teaching visual analysis, grading assignments), it moves on through questions of research and project-based teaching, lecturing, and the creation of an inclusive and equitable classroom. Students are asked to design a class they could teach, including a syllabus and assignment prompts. They will also learn how to deliver a lecture (in class, at a conference) and will explore the job market (academic and non-academic) for art historians and archaeologists. The class is recommended for students who have served once as a TA and taken the basic "TA Training" workshops.

0101	Tess Korobkin, Abigail McEwen, Jordana Saggese, Anthony Colantuono, Alicia Volk, Jason Kuo W 1:00pm - 3:30pm	Seats (Total: 10) ASY 4304

ARTH758B **Seminar in American Art; Visual Histories of the Black Atlantic**

Taking Paul Gilroy's conception of the "Black Atlantic" as our touchstone, this course explores visual and material histories of the Atlantic World in the long nineteenth century.

0101	Tess Korobkin F 1:00pm - 3:30pm	Seats (Total: 8) ASY 4304

ARTH778C **Seminar in Chinese Art; The Nomadic Artist in the Chinese Diaspora**

Critical but contested concepts such as nation, migration, displacement, exile, homeland, mobility, transculturalization, citizenship, cosmopolitanism, and hybridity are investigated by studying nomadic, journeying, wandering artists in the Chinese diaspora in Southeast Asia,Oceania, and Euro-America. Artists to be studied include Ai Weiwei, Cai Guoqiang, Huang Yao, Kim Lim, Maya Lin, I. M. Pei, and Xu Bing.

0101	Jason Kuo Th 2:00pm - 4:30pm	Seats (Total: 8) ASY 4304

ARTH779A **Seminar in Japanese Art; Nihonga and Neo-traditionalism: What is Japanese about Japanese Art?**

This course investigates modern dimensions of globality--globalism, modernism, colonialism, and imperialism, among others--through the lens of nihonga, the so-called native tradition within modern Japanese painting. We will consider how, in a global context based on uneven relations of power, generations of contemporary artists navigated conceptions of history and geography--as well as race and ethnicity--in their artworks, sometimes in response to Japan's unusual status as an empire on the periphery. Close attention will be paid to the materials and facture of objects as well as their reception by multiple audiences.

0101	Alicia Volk Tu 1:30pm - 4:00pm	Seats (Total: 8) ASY 4304

ARTH798 **Directed Graduate Studies in Art History**

(Perm req)

Contact department for information to register for this course.

ARTH799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ARTH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

ARTH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ARTT Art Studio Spring 2024

ARTT100 **Two-Dimensional Design Fundamentals**

Principles and elements of two-dimensional design. Introduction to visual communication.

Students must pay a $40.00 studio lab fee.

0301	Victoria Ellison MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0401	Victoria Ellison MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0501	Victoria Ellison MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0601	Victoria Ellison MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0701	Sima Pirmoradi TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0801	Sima Pirmoradi TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab

ARTT110 **Elements of Drawing I**

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Students must pay a $40.00 studio lab fee.

0101	Brandon Donahue TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0201	Brandon Donahue TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab
0301	Jill Stauffer MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2317	Lab
0401	Jill Stauffer MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2321	Lab
0501	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
0601	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
0701	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
0801	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
0901	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
1001	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab

ARTT150 **Introduction to Art Theory**

Fundamental concepts of global, philosophic, and critical art theory examined through various historic and contemporary texts, and the analysis of works of art.

0101	Jason Kass MW 1:00pm - 1:50pm M 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0220 SQH 1111	Discussion
0102	Jason Kass MW 1:00pm - 1:50pm W 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0220 SQH 1111	Discussion
0103	Jason Kass MW 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 25) JMZ 0220 KNI 1105	Discussion
0104	Jason Kass MW 1:00pm - 1:50pm Th 2:00pm - 2:50pm	Seats (Total: 25) JMZ 0220 SQH 1105	Discussion
0105	Jason Kass MW 1:00pm - 1:50pm Tu 12:30pm - 1:20pm	Seats (Total: 25) JMZ 0220 HBK 0109	Discussion
0106	Jason Kass MW 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) JMZ 0220 SQH 1105	Discussion

ARTT200 **Three-Dimensional Art Fundamentals**

Prerequisite: ARTT100 and ARTT110.

Fundamental concepts of three-dimensional form and space examined through the manipulation and organization of various materials.

Students must pay a $40.00 studio lab fee.

0101	Foon Sham TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab
0102	Charlotte Richardson-Deppe MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	Lab
0201	Sima Pirmoradi TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 1311	Lab

0301	Charlotte Richardson-Deppe MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 1311	Lab

ARTT210 **Elements of Drawing II**

Prerequisite: ARTT110.

Continuation of ARTT110 with additional emphasis on color, figure drawing, and contemporary issues.

Students must pay a $40.00 studio lab fee.

0101	Irene Pantelis TuTh 9:00am - 11:30am	Seats (Total: 16) ASY 2315	Lab
0201	Emily Conover TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	Lab
0301	Julia Kwon MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	Lab
0401	Julia Kwon MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	Lab

ARTT255 **Introduction to Digital Art and Design Processes**

Prerequisite: ARTT100 and ARTT110. Credit only granted for: ARTT255 or ARTT354. Formerly: ARTT354.

Introduction to basic software and principles of digital imaging, and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.

Students must pay a $40.00 studio lab fee.

0101	Shannon Collis Class time/details on ELMs	Seats (Total: 18) ONLINE	Lab
0201	Narendra Ratnapala TuTh 12:30pm - 3:00pm	Seats (Total: 18) ATL 1410	Lab
0301	Narendra Ratnapala TuTh 3:30pm - 6:00pm	Seats (Total: 18) JMZ 1120	Lab

0401	Johab Silva MW 12:30pm - 3:00pm	Seats (Total: 18) ONLINE	

ARTT260 **Dangerous Art: Censorship or Subsidy**

Combines a broad historical analysis of the relationship between art and authority with an examination of contemporary culture criticism and art practice. Explores the uses and abuses of art and culture in totalitarianand theocratic states as a prelude to a review of the role of official culture in the United States. Examines art and culture in the public arena and many related areas where the arts and policy interact.

0101	Greg Metcalf TuTh 12:30pm - 1:45pm	Seats (Total: 60) SQH 1119	

ARTT320 **Elements of Painting**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes of oil and/or acrylic painting.

Students must pay a $40.00 studio lab fee.

0101	Benjamin Edwards MW 3:00pm - 5:30pm	Seats (Total: 18) ASY 3322	
0201	Emily Conover TuTh 12:30pm - 3:00pm *This section uses acrylic paint only.*	Seats (Total: 18) ASY 3316	Lab
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 12) ASY 3322	Lab

ARTT330 **Elements of Sculpture: Metal Casting**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Students must pay a $40.00 studio lab fee.

0101	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 12) ASY 1310	Lab

ARTT330H **Elements of Sculpture: Metal Casting**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Steven Jones	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 1310	Lab

ARTT331 **Elements of Sculpture: Steel**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Students must pay a $40.00 studio lab fee.

0101	Steven Jones	Seats (Total: 10)	
	MW 3:00pm - 5:30pm	ASY 1314	Lab

ARTT333 **Elements of Sculpture: Wood and Mixed Media**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 12)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT333H **Elements of Sculpture: Wood and Mixed Media**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Foon Sham	Seats (Total: 2)	
	TuTh 3:00pm - 5:30pm	ASY 1311	Lab

ARTT341 **Elements of Printmaking: Woodcut and Relief**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

Students must pay a $40.00 studio lab fee.

0101	Jessica Gatlin	Seats (Total: 12)	
	MW 9:00am - 11:30am	ASY 1317	Lab

ARTT341H **Elements of Printmaking: Woodcut and Relief**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

0101	Jessica Gatlin	Seats (Total: 2)	
	MW 9:00am - 11:00am	ASY 1317	Lab

ARTT343 **Elements of Printmaking: Screen Printing**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Students must pay a $40.00 studio lab fee.

0101	Justin Strom	Seats (Total: 12)	
	TuTh 12:30pm - 3:00pm	ASY 1317	Lab
0201	Justin Strom	Seats (Total: 12)	
	TuTh 3:30pm - 6:00pm	ASY 1317	Lab

ARTT343H **Elements of Printmaking: Screen Printing**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Restricted to departmental honors students only. Students must pay a $40.00 studio lab fee.

0101	Justin Strom	Seats (Total: 2)	
	TuTh 12:30pm - 3:00pm	ASY 1317	Lab

ARTT353 **Elements of Photography**

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Introduction to digital photographic image-making. With an emphasis on technical, aesthetic and conceptual understanding of the photographic medium, camera operation, and photographic composition. Students must have access to a Digital SLR or mirrorless camera capable of interchangeable lenses for this class.

0101	Charlotte Richardson-Deppe	Seats (Total: 16)	
	TuTh 12:30pm - 3:00pm	ASY 3304	Lab

ARTT357 **Interactive Design**

(Perm req)

Prerequisite: ARTT355 and ARTT356.

In-depth exploration of interactive design and website construction. Emphasis on concept-driven and community-based projects using variety of interactive software programs.

Students must pay a $40.00 studio lab fee.

0101	Alireza Vaziri Rahimi	Seats (Total: 25)	
	TuTh 12:30pm - 3:00pm	ASY 2322	Lab

ARTT361 **Design Literacy: Decoding Our Visual Culture**

Prerequisite: ARTT355 and ARTT356. Credit only granted for: ARTT361 or ARTT489L. Formerly: ARTT489L.

Holistic presentation of design history and theory from pre-history to present. Covers primarily visual communication design and includes the interrelationship of interior-, furniture-, industrial-, fashion-design, and architecture.

0101	Varvara Tokareva	Seats (Total: 25)	
	MW 12:30pm - 1:45pm	ASY 2232	Lab

ARTT369T **Special Topics in Study Abroad III; Elements of Photography**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT370 **Elements of Digital Media**

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; or permission of ARHU-Art department.

Exploration of image creation and manipulation, interactivity, and linkages between digital audio and video. Emphasis on issues in contemporary digital art.

Students must pay a $40.00 studio lab fee.

0101	Johab Silva	Seats (Total: 15)	
	MW 3:30pm - 6:00pm	ASY 3304	
0201	Johab Silva	Seats (Total: 14)	
	TuTh 3:00pm - 5:30pm	ASY 3304	

ARTT386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-Art department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ARTT389 **Department of Art Undergraduate Teaching Assistantship**

(Perm req)

Individual contractual agreement with faculty/mentor. Individualized assistantship in the teaching of a specified department course offering. Must have previously received an "A" grade for the class to be assisting.

Contact department for information to register for this course.

ARTT399 **Department of Art Research Assistantship**

(Perm req)

Individual contractual agreement with faculty/mentor. Individualized experiential learning developed in relation to art-related research issues.

Contact department for information to register for this course.

ARTT418B **Advanced Drawing Studio; Advanced Drawing: Contemporary Approach**

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT150, ARTT200 and ARTT210; plus one 300-level studio course; or permission of Department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

0101	Matthew McLaughlin MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 2314	Lab
0201	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2314	Lab
0301	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2314	Lab

ARTT418H **Advanced Drawing Studio; Honors Advanced Drawing**

(Perm req)

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Restricted to departmental honors students only. Prerequisite: ARTT150, ARTT200, and ARTT210; plus one 300-level studio course; and permission of department. Students must pay a $40.00 studio lab fee.

0101	Matthew McLaughlin MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 2314	Lab

0201	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 2314	Lab
0301	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 2314	Lab

ARTT427 **Advanced Painting: Painting on Site II**

Prerequisite: ARTT320. Restriction: Permission of the Art Department.

Designed for Art and design, architecture, urban planning, and public engagement majors and Creative Placemaking minors seeking to build and strengthen relationships through public place-based artwork . This course will teach ethical methods of public outreach through community engagement, the stages of mural design, and research to aid the mural design phase. This course will also examine the various materials used to create a public work of art and apply them throughout the semester effectively.

0101	Brandon Donahue TuTh 12:30pm - 3:00pm	Seats (Total: 16) ASY 3312	Lab

ARTT428 **Advanced Painting Studio; Advanced Painting**

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT320 or permission of department. Repeatable to 12 credits. Students must pay a $40.00 studio lab fee. Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions.

0101	Patrick Craig TuTh 3:30pm - 6:00pm *This section uses acrylic paint only.*	Seats (Total: 18) ASY 3312	Lab
0301	Richard Klank MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 3318	Lab

ARTT428H **Advanced Painting Studio; Honors Advanced Painting**

(Perm req)

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Prerequisite: ARTT320 and permission of department. Students must pay a $40.00 studio lab fee.

0101	Patrick Craig TuTh 3:30pm - 6:00pm *This section uses acrylic paint only.*	Seats (Total: 2) ASY 3312	Lab
0301	Richard Klank MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3318	Lab

ARTT428X **Advanced Painting Studio**

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Contact department for information to register for this course.

ARTT438A **Advanced Sculpture Studio**

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must paya $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 4) ASY 1310	Lab

ARTT438D **Advanced Sculpture Studio**

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed ARTT333 sculpture course; or permission of instructor. Students must pay a $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Foon Sham TuTh 3:00pm - 5:30pm	Seats (Total: 3) ASY 1311	Lab

ARTT438E **Advanced Sculpture Studio**

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must paya $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Steven Jones MW 3:00pm - 5:30pm	Seats (Total: 4) ASY 1314	Lab

ARTT438H **Advanced Sculpture Studio**

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Restricted to departmental honors students only. Students must paya $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Foon Sham TuTh 3:00pm - 5:30pm	Seats (Total: 2) ASY 1311	 Lab
0201	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1314	 Lab
0301	Steven Jones MW 3:00pm - 5:30pm	Seats (Total: 2) ASY 1314	 Lab

ARTT448E **Advanced Printmaking Studio; Worldbuilding Through Printmedia**

Multi-level printmaking studio; continuation of media-specific printmaking courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Jessica Gatlin MW 3:30pm - 6:00pm	Seats (Total: 12) ASY 1317	 Lab

ARTT448H **Advanced Printmaking Studio; Worldbuilding Through Printmedia**

Multi-level printmaking studio; continuation of media-specific printmaking courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	Jessica Gatlin MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 1317	 Lab

ARTT455 **Three Dimensional Graphic Design**

(Perm req)

Prerequisite: ARTT355, ARTT356, and ARTT357. Recommended: ARTT333. Credit only granted for: ARTT352 or ARTT455. Formerly: ARTT352.

Continued exploration of advanced graphic design practices with primary emphasis on 3-D object and packaging design. Includes research, course reading discussion, oral presentations, and specific project assignments which will require a proficient level of hand-skills (craft) and computer skills.

Students must pay a $40.00 studio lab fee.

0101	Alireza Vaziri Rahimi	Seats (Total: 25)	
	TuTh 3:30pm - 6:00pm	ASY 2322	Lab

ARTT458 **Graphic Design Portfolio; Advanced Graphic Design**

(Perm req)

Creation of a comprehensive professional portfolio. Curriculum includes portfolio preparation and presentation, contracts, copyright issues, interviewing skills, resume and cover-letter writing, design briefs and proposals, and freelance business issues. Portfolio presentation includes basics of book arts.

Students must pay a $40.00 studio lab fee. Print publication and self promotion design.

0101	Antwon Key	Seats (Total: 25)	
	MW 9:30am - 12:00pm	ASY 2322	Lab

ARTT469 **Professional Practice**

Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

Restriction: Senior standing or permission of Art Department. Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

0101	Steven Jones	Seats (Total: 8)
	W 6:00pm - 8:30pm	ASY 3304

ARTT469H **Professional Practice**

Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

Restricted to departmental Honors students.

0101	Steven Jones	Seats (Total: 4)
	W 6:00pm - 8:30pm	ASY 3304

ARTT479D **Advanced Digital Media Studio; Immersive and Virtual Environments**

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370 or permission of Department. Introduction to the uses of game development software in an artistic context. Practical examination of interactive, immersive and installation art as mediated through the context of real-time computer generated imagery and game engine methodologies. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell TuTh 6:00pm - 8:30pm	Seats (Total: 14) ASY 3304	Lab

ARTT479E **Advanced Digital Media Studio; Art and Electronics**

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370 or permission of Department. Studio course exploring the basics of building circuits with electronic components, motors, sensors, and Arduino technology in the context of interactive art and kinetic sculpture. Students must pay a $40.00 studio lab fee.

0101	Cy Keener MW 12:30pm - 3:00pm	Seats (Total: 14) ASY 3304	Lab

ARTT479H **Advanced Digital Media Studio; Honors Advanced Digital Media**

(Perm req)

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370. Restricted to Departmental Honors students. Students must pay a $40.00 studio lab fee. Basics of sound recording, mixing, and processing, as well as creative applications of sound used for screen-based practices, performance and installation art. Theoretical concepts central to sound as an artistic medium are also introduced.

0301	Cy Keener MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3304	Lab
0401	Mollye Bendell TuTh 6:00pm - 8:30pm	Seats (Total: 2) ASY 3304	Lab

ARTT489E **Advanced Special Topics in Art; Creative Experiments with AI**

Advanced studio art and theory within the context of a special topic.

Prerequisite: ARTT370 or Permission of IMDM-Immersive Media Design Program. Credit only granted for ARTT489E or IMDM498E. In this course, students will use the most advanced forms of generative AI for artistic creation and exploration. The course will be a combination of lecture, workshops, studio time, and occasional class visits from Areas explored include: Generative AI - Imagery, video art, filmmaking, sound production, and literature. Tools used include Midjourney, Stable Diffusion, Runway, Dreambooth, Photoshop, Ableton, and Chat GPT.

0101	Ari Melenciano TuTh 9:00am - 11:30am	Seats (Total: 10) ASY 3304	Lab

ARTT489H **Advanced Special Topics in Art**

(Perm req)

Advanced studio art and theory within the context of a special topic.

Prerequisite: permission of department. This course is restricted to departmental Honors students. Students must pay a $40.00 laboratory studion fee.

0101	Instructor: TBA MW 12:30pm - 3:00pm	Seats (Total: 2) ONLINE	Lab
0201	Instructor: TBA MW 3:30pm - 6:00pm	Seats (Total: 2) ONLINE	Lab
0301	Foon Sham TuTh 3:30pm - 6:00pm	Seats (Total: 2) ONLINE	Lab
0401	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 2) ONLINE	Lab
0601	Antwon Key TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 2322	Lab

ARTT489J **Advanced Special Topics in Art; Design and Democracy**

Advanced studio art and theory within the context of a special topic.

Cross-listed with GVPT368O and PLCY488A. Credit only granted for ARTT489J, GVPT368O, or PLCY488A.

0101	Hannah Smotrich MW 3:00pm - 5:30pm	Seats (Total: 15) ASY 2322	Lab

ARTT489P **Advanced Special Topics in Art; Experimental Film and Video**

Advanced studio art and theory within the context of a special topic.

Contact department for information to register for this course.

ARTT489T **Advanced Special Topics in Art; The Contemporary Art World**

Advanced studio art and theory within the context of a special topic.

0101	Jason Kass MW 9:30am - 10:45am	Seats (Total: 15) ASY 3304	

ARTT498A **Directed Studies in Studio Art**

(Perm req)

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498B **Directed Studies in Studio Art**

(Perm req)

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498H **Directed Studies in Studio Art; Honors Thesis**

(Perm req)

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Restricted to departmental honors students only. Prerequisite: permission of department. Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT618 **Drawing; Drawing**

(Perm req)

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT628 **Painting; Painting**

(Perm req)

Graduate painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT638 **Sculpture; Sculpture**

(Perm req)

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT648 **Printmaking; Printmaking**

(Perm req)

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698A **Directed Graduate Studies in Studio Art**

(Perm req)

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698B **Directed Graduate Studies in Studio Art**

(Perm req)

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698C **Directed Graduate Studies in Studio Art; Graduate Teaching Practicum**

(Perm req)

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699A **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699B **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT718 **Drawing; Drawing**

(Perm req)

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT728 **Painting; Painting**

(Perm req)

Independent studies in painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT738 **Sculpture; Sculpture**

(Perm req)

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT748 **Printmaking; Printmaking**

(Perm req)

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT768 **Graduate Colloquium**

(Perm req)

Examines various aspects of art, art theory and criticism in a contemporary and multi-cultural context. Relates student work to this context.

Students must pay a $60.00 studio lab fee.

0101	Benjamin Edwards Th 6:30pm - 9:00pm	Seats (Total: 18) SQH 2113

ARTT798A **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT798B **Directed Graduate Studies in Studio Art**

(Perm req)

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT799 **Master's Thesis Research**
Contact department for information to register for this course.

ASTR Astronomy Spring 2024

ASTR100 **Introduction to Astronomy**

Credit only granted for: ASTR100, ASTR101, or ASTR120.

An elementary course in descriptive astronomy, especially appropriate for non-science students. Topics include the Sun, Moon, planets, stars, and nebulae, galaxies, and evolution of the Universe.

Discussion sections do not meet the first week of classes. Attend lecture before coming to discussion section.

0101	Alberto Bolatto TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 40) PHY 1412 ATL 2428	Discussion
0102	Alberto Bolatto TuTh 9:30am - 10:45am M 2:00pm - 2:50pm	Seats (Total: 40) PHY 1412 ATL 2428	Discussion
0103	Alberto Bolatto TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 40) PHY 1412 ATL 2428	Discussion
0104	Alberto Bolatto TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 40) PHY 1412 ATL 2428	Discussion
0105	Alberto Bolatto TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 40) PHY 1412 ATL 2428	Discussion
0106	Alberto Bolatto TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 40) PHY 1412 ATL 2428	Discussion

ASTR101 **General Astronomy**

Credit only granted for: ASTR100, ASTR101, or ASTR120.

Descriptive astronomy, appropriate for non-science majors. Sun, moon, planets, stars, nebulae, galaxies and evolution. Laboratory exercises include use of photographic material, computer simulations, and standard laboratory equipment.

Discussion sections and lab do not meet the first week of classes. Attend lecture before coming to discussion or lab section. Students must pay a $50.00 Laboratory Materials fee.

0101	Marvin Jones, Michael Miller	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	Tu 5:30pm - 7:30pm	ATL 0254	Lab
	Tu 3:30pm - 4:20pm	ATL 2428	Discussion
0102	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	W 8:30am - 10:30am	ATL 0254	Lab
	Tu 3:30pm - 4:20pm	ATL 2428	Discussion
0103	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	W 11:00am - 1:00pm	ATL 0254	Lab
	W 10:00am - 10:50am	ATL 2428	Discussion
0104	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	Th 8:30am - 10:30am	ATL 0254	Lab
	W 10:00am - 10:50am	ATL 2428	Discussion
0105	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	W 6:00pm - 8:00pm	ATL 0254	Lab
	W 11:00am - 11:50am	ATL 2428	Discussion
0106	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	F 1:00pm - 3:00pm	ATL 0254	Lab
	W 11:00am - 11:50am	ATL 2428	Discussion
0107	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PHY 1412	
	W 1:00pm - 3:00pm	ATL 0254	Lab
	W 12:00pm - 12:50pm	ATL 2428	Discussion

0108	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm F 9:00am - 11:00am W 12:00pm - 12:50pm	PHY 1412 ATL 0254 ATL 2428	 Lab Discussion
0109	Michael Miller, Marvin Jones	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 6:00pm - 8:00pm W 2:00pm - 2:50pm	PHY 1412 ATL 0254 ATL 2428	 Lab Discussion
0110	Marvin Jones, Michael Miller	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 3:30pm - 5:30pm W 2:00pm - 2:50pm	PHY 1412 ATL 0254 ATL 2428	 Lab Discussion

ASTR121 **Introductory Astrophysics II - Stars and Beyond**

Prerequisite: ASTR120 and MATH140; or permission of CMNS-Astronomy department. Restriction: Must be in Astronomy program; or permission of CMNS-Astronomy department.

For students majoring in astronomy or with a strong interest in science. Includes instrumentation, stellar properties, stellar evolution, structure of the galaxy, other galaxies, large scale structure, Big Bang Theory, and future of the universe.

0101	Derek Richardson	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm M 11:00am - 1:00pm F 1:00pm - 1:50pm	ESJ 2309 ATL 0224 ATL 1114	 Lab Discussion
0102	Derek Richardson	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm M 2:00pm - 4:00pm F 2:00pm - 2:50pm	ESJ 2309 ATL 0224 ATL 1114	 Lab Discussion

ASTR220 **Collisions in Space - The Threat of Asteroid Impacts**

Restriction: Must not be in the Astronomy major.

Should we defend our planet against potential asteroid impacts? Collisions in Space will evaluate the threat of asteroid impacts with the Earth using knowledge of asteroid characteristics and orbits. The merits of possible defense plans will be discussed, as well as the budgetary and political concerns associated with implementing any such plan. Appropriate for non-science majors.

0101	Jessica Sunshine MW 2:00pm - 3:15pm Tu 3:30pm - 4:20pm	Seats (Total: 30) HJP 2242 HBK 1108	Discussion
0102	Jessica Sunshine MW 2:00pm - 3:15pm Tu 4:30pm - 5:20pm	Seats (Total: 30) HJP 2242 HBK 1108	Discussion

ASTR288 **Special Projects in Astronomy**

(Perm req)

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

A faculty sponsor must be found by the students prior to enrollment.

Contact department for information to register for this course.

ASTR288B **Special Projects in Astronomy; Mathematics in Astronomy**

(Perm req)

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

Restriction: Permission of CMNS-Astronomy department. This course is designed to assist astronomy majors (particularly first years or prospective majors) with the mathematical framework needed to be successful in Calculus I and Calculus II. This course will review concepts in algebra, trigonometry, geometry, functions, logarithms, and exponentials, as well as other topics. The course will also explore how these concepts show up in astronomy.

0101	Marvin Jones W 11:00am - 11:50am	Seats (Total: 20) ATL 1106	

ASTR288I **Special Projects in Astronomy; Introduction to the Astronomy Major**

(Perm req)

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

Restriction: Permission of CMNS-Astronomy department. Introduces new Astronomy majors to the possible career paths that they might choose upon completion of an undergraduate Astronomy degree, soft skills that would be useful in these possible careers, and useful skills and knowledge to better prepare them for research as an undergraduate.

0101	Marvin Jones M 4:00pm - 4:50pm	Seats (Total: 20) ATL 1114	

ASTR300 **Stars and Stellar Systems**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. Study of stars-types, properties, evolution, and distribution in space; supernovae, pulsars, and black holes.

0101	Marvin Jones MW 2:00pm - 3:15pm	Seats (Total: 60) ATL 2400	

ASTR315 **Astronomy in Practice**

Restriction: Must not be in Astronomy program. Additional information: Appropriate for non-science majors.

Students learn astronomy research techniques and contribute significantly to the existing body of astronomical knowledge. Students apply methods and tools such as celestial coordinates, telescopes and CCD cameras, and appropriate analysis software to a specific observational goal. Students produce a work detailing their scientific result which will be submitted for publication in a professional venue. Each semester, the course focuses on a specific astronomical topic or type of object, such as asteroids, extrasolar planets, supernovae in other galaxies, quasars, etc.

0101	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm F 11:00am - 12:50pm	Seats (Total: 24) ESJ 2309 ATL 0224	 Lab
0102	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm M 9:00am - 10:50am	Seats (Total: 24) ESJ 2309 ATL 0224	 Lab

ASTR320 **Theoretical Astrophysics**

Prerequisite: ASTR121; and (PHYS270 and PHYS271; or PHYS273). Restriction: Must be in Astronomy program.

Application of selected physics concepts in an astrophysical context. Topics would include gravity (Keplerian motion, Virial theorem, Roche limit, dynamical friction); gas dynamics (hydrostatic equilibrium, stellar models, spiral density waves), thermodynamics and statistical physics (Boltzmann distribution, Wien displacement, convective instability, degenerate gas); atomic physics (quantum principles, H atom, permitted and forbidden lines); radiation processes (line radiation, opacity).

0101	Eliza Kempton TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 32) ATL 2428 ATL 2428	 Discussion

ASTR340 **Origin of the Universe**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. A study of our progression of knowledge about the universe. Topics include: early cosmological models, geocentric vs. heliocentric theory, curvature of space, Hubble's Law, Big Bang Theory, microwave background radiation, evolution of stars and galaxies, dark matter, active galaxies, quasars and the future of the universe.

0101	Massimo Ricotti	Seats (Total: 60)
	TuTh 9:30am - 10:45am	ATL 2400

ASTR350 **Black Holes**

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR398B or ASTR350. Formerly: ASTR398B.

Black holes are the most exotic prediction of Einstein's Theory of General Relativity and, amazingly, the Universe seems to manufacture these bizarre objects in copious numbers. As well as being the ultimate laboratory for studying the nature of space and time, they drive some of the most energetic and extreme phenomena known to astronomers (with quasars and gamma-ray bursts being just a couple of examples). In this introduction to the physics and astrophysics of black holes, we start by examining the basic physics of black holes, which fundamentally means understanding gravity. We then look at the nature of stellar-mass black holes and supermassive black holes. We will discuss the fairly recent realization that black holes may be crucial agents for regulating the growth of galaxies. Finally, we dive into the realm of theoretical physics and probe how black holes may provide a route for uncovering new laws of physics governing the structure of space and time.

0101	Richard Mushotzky	Seats (Total: 60)
	TuTh 2:00pm - 3:15pm	ATL 2400

ASTR399 **Honors Seminar**

(Perm req)

Credit according to work done.

Contact department for information to register for this course.

ASTR422 **Cosmology**

Prerequisite: Must have completed or be concurrently enrolled in ASTR320; or permission of CMNS-Astronomy department.

Introduction to modern cosmology. Topics include large scale structure of universe, the intergalactic medium, the nature of dark matter cosmological models and galaxy formation.

0101	Christopher Reynolds TuTh 2:00pm - 3:15pm	Seats (Total: 30) ATL 1114

ASTR450 **Orbital Dynamics**

Prerequisite: Must have completed or be concurrently enrolled in ASTR320; or permission of CMNS-Astronomy department.

Vectorial mechanics, motion in a central force field, gravitational and non-gravitational forces, the two-body and three-body problems, orbital elements and orbital perturbation theory, resonances in the solar system, chaos. Intended for students majoring in any of the physical sciences.

0101	Douglas Hamilton TuTh 3:30pm - 4:45pm	Seats (Total: 30) ATL 2416

ASTR498 **Special Problems in Astronomy**

(Perm req)

Research or special study. Credit according to work done.

Contact department for information to register for this course.

ASTR620 **Galaxies**

(Perm req)

Restriction: Permission of CMNS-Astronomy department.

Galaxy classifications; Milky way: basic data, distribution of stars, gas, dust and relativistic particles, large-scale structure and rotation; Spiral galaxies: stellar dynamics and stability, density waves, star bursts, galactic center; Elliptical galaxies: stellar dynamics, cannabalism; galaxy formation.

0101	Benedikt Diemer TuTh 12:30pm - 1:45pm	Seats (Total: 20) ATL 0201

ASTR635 **Exoplanetary Astrophysics**

(Perm req)

Restriction: Permission of CMNS-Astronomy department. Credit only granted for: ASTR635 or ASTR688E. Formerly: ASTR688E.

Introduces students to the current state of the exoplanetary field, at a graduate level. Topics covered will include exoplanet detection, exoplanet demographics, planet formation and evolution, planetary atmospheres and interiors, and habitability.

0101	Thaddeus Komacek TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 0201

ASTR688C **Special Topics in Modern Astronomy; Seminar in Modern Astronomy Research**

(Perm req)

Special topics such as extragalactic radio sources, plasma astrophysics, the H.R. diagram, chemistry of the interstellar medium, radiophysics of the sun.

0101	Andrew Harris W 3:30pm - 5:30pm	Seats (Total: 30) ATL 2400

ASTR699 **Special Problems in Advanced Astronomy**

(Perm req)

Contact department for information to register for this course.

ASTR799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ASTR898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

ASTR899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BCHM Biochemistry Spring 2024

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SES" is restricted to students admitted into the Science in the Evening Program, administered through the Office of Extended Studies. For complete information, visit: http://oes.umd.edu/index.php?slab=sie , e-mail oes@umd.edu, or call 301-405-7762.*

BCHM461 **Biochemistry I**

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461 or BCHM463.

First semester of a comprehensive introduction to modern biochemistry. Structure, chemical properties, and function of proteins and enzymes, carbohydrates, lipids, and nucleic acids. Basic enzyme kinetics and catalytic mechanisms.

0101	Jinwoo Lee TuTh 9:30am - 10:45am	Seats (Total: 69) CHM 1402
0102	Jason Kahn TuTh 12:30pm - 1:45pm	Seats (Total: 69) CHM 1402

0103	Paul Paukstelis MWF 8:00am - 8:50am	Seats (Total: 69) CHM 1402

BCHM462 **Biochemistry II**

Prerequisite: Minimum grade of C- in BCHM461. Credit only granted for: BCHM462 or BCHM463.

A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

0101	Myles Poulin TuTh 2:00pm - 3:15pm	Seats (Total: 75) CHM 1402
0102	Bonnie Dixon MWF 1:00pm - 1:50pm	Seats (Total: 75) CHM 1402

BCHM463 **Biochemistry of Physiology**

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461, BCHM462 or BCHM463.

A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

0101	Christopher Capp MWF 2:00pm - 2:50pm	Seats (Total: 71) CHM 1402
0201	Bonnie Dixon TuTh 2:00pm - 3:15pm	Seats (Total: 71) PLS 1140
0301	Christiana Guest MWF 9:00am - 9:50am	Seats (Total: 71) PLS 1140
SES1	Bonnie Dixon M 6:30pm - 9:30pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 30) CHM 2201

BCHM464 **Biochemistry Laboratory**

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for all College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: BCHM465. Restriction: BCHM, CHEM, and Nutritional Sciences majors have first priority, followed by other life science majors.

Biochemical and genetic methods for studying protein function. Site-directed mutagenesis and molecular cloning, protein purification, enzyme activity assays, computer modeling of protein structure.

Students must pay a $40.00 lab materials fee.

0101	Christopher Capp Th 11:00am - 11:50am M 1:00pm - 5:50pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab
0102	Christopher Capp Th 11:00am - 11:50am Tu 12:30pm - 5:20pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab
0103	Christopher Capp Th 11:00am - 11:50am W 1:00pm - 5:50pm	Seats (Total: 18) CHM 1402 ESJ 0316	 Lab

BCHM465 **Biochemistry III**

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Recommended: BCHM462.

CORE Capstone (CS) Course. An advanced course in biochemistry. Biochemical approach to cellular information processing. DNA and RNA structure. DNA replication, transcription, and repair. Translation of mRNA to make proteins.

0101	Paul Paukstelis MWF 12:00pm - 12:50pm	Seats (Total: 80) CHM 1402	

BCHM477 **Biomolecular Measurement and Data Analysis**

Prerequisite: CHEM271 or CHEM276; and (CHEM277 or CHEM272). Restriction: Must be in the Chemistry or Biochemistry major.

Covers a range of classic and modern biochemical assays and techniques as well as introducing data science approaches to "omics" data. Upon successful completion of this course, students should have the necessary preparation and experience to collaborate productively with research scientists in industrial, clinical or academic contexts.

0101	Jason Kahn MW 3:00pm - 3:50pm Th 2:00pm - 4:50pm	Seats (Total: 18) PLS 1111 ESJ 1324	 Lab

BCHM485 **Physical Biochemistry**

Prerequisite: Minimum grade of C- in CHEM481. Restriction: Must be in Biochemistry program; or permission of instructor. Credit only granted for: CHEM482 or BCHM485.

Physical Chemistry with applications to biological systems. Principal topics: quantum chemistry, spectroscopy, structural methods for biological macromolecules, statistical thermodynamics, transport processes in liquid phase, chemical and biochemical kinetics, modeling and simulation, polymer dynamics.

0101	David Fushman	Seats (Total: 47)
	TuTh 9:30am - 10:45am	PHY 2122

BCHM675 **Biophysical Chemistry**

Prerequisite: CHEM481 and BCHM461; or students who have taken courses with comparable content may contact the department.

Conformation, shape, structure, conformational changes, dynamics and interactions of biological macromolecules and complexes or arrays of macromolecules. Physical techniques for studying properties of biological macromolecules.

0101	Theodore Dayie	Seats (Total: 24)
	TuTh 9:30am - 10:45am	PHY 2124

BCHM676 **Biological Mass Spectrometry**

Prerequisite: BCHM461 or BCHM463. Formerly: BCHM669B.

Fundamentals of modern mass spectrometry and use with biochemical techniques to provide unique analyses of drug metabolites, lipids, carbohydrates, nucleotides and proteins. The interface with bioinformatics will be examined, which provides the foundation of proteomics.

0101	Peter Nemes	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	PHY 2124

BCHM698 **Literature Seminar in Biochemistry**

(Perm req)

Students will prepare and present a departmental seminar based on a topic in the current biochemical research literature.

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM699 **Special Problems in Biochemistry**

Laboratory experience in a research environment. Restricted to students in the non-thesis M.S. option.

Open only to non-thesis M.S. degree candidates.

Contact department for information to register for this course.

BCHM799 **Master's Thesis Research**
Contact department for information to register for this course.

BCHM889A **Seminar; Biochemistry**

0101	Theodore Dayie	Seats (Total: 45)
	Tu 11:00am - 12:15pm	IPT 1116

BCHM889B **Seminar**

(Perm req)

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889D **Seminar; Enzymology of Recombination**

(Perm req)

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

BCHM889E **Seminar**

0101	Instructor: TBA	Seats (Total: 25)
	W 11:00am - 12:15pm	Location: TBA

BCHM889M **Seminar; Modern Methods in NMR and Structural Biology**

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM898 **Pre-Candidacy Research**
Contact department for information to register for this course.

BCHM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BDBA Doctor of Business Administration Spring 2024

BDBA803 **Causal Methods in Business Research**

Restriction: Must be in Doctor of Business Administration (BDBA) program; or permission of BMGT-Robert H Smith School of Business.

Causal inference is required to answer diverse substantive questions: How does the demand for a product change when the price does or the online ratings do? How can we measure whether introducing technology in schools, universities and/or classrooms affects the performance of students? How will different IT-enabled features on digital platforms impact user behavior, engagement, and purchase? Many companies and governmental agencies ask and try to answer these questions of this type -which require causal inference--every day. This course introduces the fundamentals of causality and the appropriate language to ask and answer causal questions in a business context. The course materials focus on the ideas and on the intuition behind the fundamental tools used to measure causal effects, some hands-on work to get exposure to implementing these methods, as well as the ethical and regulatory issues around experimentation.

0101	Jui Ramaprasad	Seats (Total: 5)
	Meets January 19, 2024 - May 18, 2024	
	F 2:15pm - 7:00pm	VMH 4534

BDBA805 **Emerging Technologies Research Foundations**

Restriction: Must be in Doctor of Business Administration (BDBA) program; or permission of BMGT-Robert H Smith School of Business.

In this course we discuss emerging technologies which have the potential to significantly impact various industries. We will broadly study new technologies and the managerial, economical, and societal impact that they may pose from different viewpoints. These may include the managerial, organizational, industry or country level. We may also discuss technologies and their impact as a disruptive innovation through case studies. Central to the class will be an emerging technology that we will discuss at a deeper level. For example, this class may discuss the technical foundations for Blockchain or the hands-on applications of augmented reality (AR) and virtual reality (VR).

0101	Il-Horn Hann	Seats (Total: 5)
	Meets January 19, 2024 - May 18, 2024	
	Sa 8:30am - 1:15pm	VMH 4335

BDBA808F **Special Topics in Information Systems; FOUNDATIONS OF AI**

Special topics specific to the Information Systems doctoral field of study.

Cross-listed with BUSM758R Credit granted for BUSM758R and BDBA808F

0101	Balaji Padmanabhan	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 1336

BDBA808X **Special Topics in Information Systems; Data Mining and Predictive Analytics**

Special topics specific to the Information Systems doctoral field of study.

Cross-listed with BMSO603 Credit only granted for BMSO603 or BDBA808X

WN01	Kislaya Prasad	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	Tu 7:00pm - 8:30pm	ONLINE

BDBA858D **Special Topics in Marketing; Marketing Research Methods**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BUSM701. Credit only granted for BUSM701 or BDBA858D

0101	Jason Choi	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	MW 2:00pm - 3:50pm	VMH 1511

BDBA858E **Special Topics in Marketing; Brand Management**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BUMS705.Credit only granted for BUSM705 or BDBA858E

0101	Mary Beth Furst	Seats (Total: 28)
	Meets March 25, 2024 - May 10, 2024	
	MW 2:00pm - 3:50pm	VMH 1511

BDBA858F **Special Topics in Marketing; Marketing Strategy**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BMGT858L.Credit only granted for BMGT858L or BDBA858F

0101	Pallassana Kannan	Seats (Total: 15)
	Tu 6:30pm - 10:00pm	VMH 4534

BDBA868A **Special Topics in Management; AI and Business Strategy**

Special topics specific to the Management doctoral field of study.

Cross-listed with BMGT758A Credit only granted for BMGT758a or BDBA868A

0501	Balaji Padmanabhan	Seats (Total: 22)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 10:00am - 11:50am	VMH 1336

BIOE Bioengineering Spring 2024

BIOE120 **Biology for Engineers**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Introduction to the functions and interactions of biological systems from a quantitative perspective. Introduction to the modern experimental techniques and methods of data analysis. Roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

0101	Ganesh Sriram TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) ESJ 1215 AJC 2134	Discussion
0102	Ganesh Sriram TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 30) ESJ 1215 AJC 2134	Discussion
0201	Brian Blair MWF 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 30) ESJ 1215 ESJ 1309	Discussion
0202	Brian Blair MWF 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 30) ESJ 1215 ESJ 1309	Discussion

BIOE121 **Biology for Engineers Laboratory**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering encompasses numerous sub-disciplines that apply engineering principles to analyze biological systems and that utilize engineering design strategies to solve biological and biomedical problems. This course is aimed at providing students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of such problems, and to gain hands-on experience in basic techniques relevant to Bioengineering.

0101	Beatrice Kondo M 11:00am - 11:50am Tu 9:00am - 10:50am	Seats (Total: 20) KEB 1110 AJC 1121	Lab
0102	Beatrice Kondo M 11:00am - 11:50am Tu 3:30pm - 5:20pm	Seats (Total: 20) KEB 1110 AJC 1121	Lab

0103	Beatrice Kondo M 11:00am - 11:50am Th 10:00am - 11:50am	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0104	Beatrice Kondo M 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 20) KEB 1110 AJC 1121	 Lab

BIOE221 **Academic and Career Planning**

(Perm req)

Prerequisite: BIOE120 and BIOE121. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Provides practical tools to help Bioengineering majors think critically about their goals and career paths. Guides Bioengineering students through accessing useful resources both on- and off-campus.

0101	Abby Shantzis, Rachel Chang W 2:00pm - 2:50pm	Seats (Total: 30) AJC 2119	
0201	Abby Shantzis, Rachel Chang W 2:00pm - 2:50pm	Seats (Total: 30) AJC 2134	

BIOE232 **Bioengineering Thermodynamics**

(Perm req)

Prerequisite: PHYS261 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE232, ENES232, ENME232, or ENME320.

A quantitative introduction to thermodynamic analysis of bioengineering systems. Bioengineering encompasses a wide range of applications from nanoscale interactions (e.g. reactions between molecules), to cellular interactions (e.g. membrane electrical currents), to overall balances on organisms, all the way to large scale manufacturing. Each of these applications (and many others not mentioned) involve energy interactions which is the domain of thermodynamics. The basic laws of thermodynamics will be introduced and explained through a series of examples related to bioengineering systems.

0101	Giuliano Scarcelli TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 AJC 2132	 Discussion
0102	Giuliano Scarcelli TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 AJC 2132	 Discussion

BIOE241 **Biocomputational Methods**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

0101	Kyung Koh MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 30) KEB 1110 KEB 2111	 Discussion
0102	Kyung Koh MW 3:00pm - 3:50pm F 3:00pm - 3:50pm	Seats (Total: 30) KEB 1110 KEB 2111	 Discussion

BIOE331 **Biofluids**

(Perm req)

Prerequisite: MATH246, BIOE120, BIOE121, BIOE241, and BIOE371; and must have completed or be concurrently enrolled in BIOE232. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE331, ENCE305, ENFP300 or ENME331.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

0101	Alisa Clyne MWF 11:00am - 11:50am F 12:00pm - 1:50pm	Seats (Total: 60) ESJ 1215 ESJ 1215	 Discussion

BIOE340 **Modeling Physiological Systems and Lab**

(Perm req)

Prerequisite: BSCI330, BIOE120, BIOE121, BIOE241, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE340 or (BSCI440 and BSCI441).

Topics covered will include cell and general physiology, membrane physiology, blood cells and clotting, circulation, metabolism, respiration, and the nervous system. A lab component will also be included.

0101	Katharina Maisel TuTh 11:00am - 12:15pm Th 5:00pm - 6:30pm	Seats (Total: 30) CHE 2108 KEB 2107	 Lab
0102	Katharina Maisel TuTh 11:00am - 12:15pm Th 5:00pm - 6:30pm	Seats (Total: 30) CHE 2108 KEB 2111	 Lab

BIOE371 **Linear Systems and Ordinary Differential Equations for Bioengineering Applications**

(Perm req)

Prerequisite: BIOE241; and must have completed or be concurrently enrolled in MATH246. Restriction: Permission on ENGR-Fischell Department of Bioengineering department.

This class utilizes fundamentals in linear systems, including eigenvalues and eigenvectors, as well as linear differential equations, to study various problems in bioengineering and biological systems, with a particular emphasis on feedback, stability, controllability, and control design.

0101	Jose Aranda-Espinoza TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 30) PLS 1140 AJC 2121	 Discussion
0102	Jose Aranda-Espinoza TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) PLS 1140 AJC 2121	 Discussion

BIOE372 **Biostatistics for Experimental Design and Data Analysis**

(Perm req)

Prerequisite: BIOE120, BIOE121, and BIOE241. Recommended: MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE372 or STAT464.

This course will instruct students in the fundamentals of probability and statistics through examples in biological phenomenon, the design of bioengineering experiments, and clinical data analysis. Fundamentals covered in the course include probability distributions, hypothesis testing, power analysis, regression analysis, and correlation analysis.

0101	Deborah Goldberg TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 60) ESJ 2212 ESJ 0215	 Discussion

BIOE386 **Bioengineering Design and Teamwork**

(Perm req)

Prerequisite: Minimum grade of C- in BIOE120, BIOE121, BIOE241, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department and must have earned a minimum of 60 credits.

Focuses on the engineering design process, including needs finding, problem definition, inclusive design, and prototyping. Students will join an existing senior capstone design team and contribute to the project. This elective is designed to be taken directly prior to BIOE485, and will collaborate with the students and projects in that course. Students who complete BIOE386 may have the option to continue their capstone project in BIOE485.

0101	Gregg Duncan M 4:00pm - 7:00pm	Seats (Total: 20) AJC 2119

BIOE389C **Special Projects in Bioengineering; Bioengineering Design Competitions**

(Perm req)

Exploring a variety of projects in Bioengineering.

BIOE389 cannot be used as a technical elective towards the BIOE curriculum requirements.

0101	Steven Jay Contact instructor or department for details.	Seats (Total: 20)

BIOE389F **Special Projects in Bioengineering; iGEM Research Seminar**

Exploring a variety of projects in Bioengineering.

Cross-listed with BSCI338F. Credit granted for BSCI338F or BIOE389F.

0101	Jason Kahn, Edward Eisenstein W 4:15pm - 6:15pm	Seats (Total: 30) PLS 1111

BIOE389M **Special Projects in Bioengineering; Research Skills and Professional Development for MARC Scholars**

(Perm req)

Exploring a variety of projects in Bioengineering.

Restricted to students in the Maximizing Access to Research Careers (MARC) Program. The course will provide instruction and opportunities for development in research skills and scientific communication, along with individualized preparation towards graduate school and a career in biomedical research .

0101	Kimberly Stroka F 1:00pm - 1:50pm	Seats (Total: 10) AJC 2134

BIOE399 **Independent Study in Bioengineering**

(Perm req)

Independent study.

Prerequisite: permission of department.

Contact department for information to register for this course.

BIOE399H **Independent Study in Bioengineering**

(Perm req)

Independent study.

Contact department for information to register for this course.

BIOE404 **Biomechanics**

(Perm req)

Prerequisite: MATH246, BIOE120, ENES102, BIOE121, and BIOE241; and must have completed or be concurrently enrolled in BIOE371. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Introduction to the fundamentals of biomechanics including force analysis, mechanics of deformable bodies, stress and strain, multiaxial deformations, stress analysis, and viscoelasticity. Biomechanics of soft and hard tissues.

0102	Kimberly Stroka	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	AJC 2134	
	W 3:00pm - 3:50pm	AJC 2134	Discussion

BIOE411 **Tissue Engineering**

(Perm req)

Prerequisite: Must have completed at least one biology course; and (BIOE120, BIOE121, BIOE241, MATH246, and MATH241). Or permission of ENGR-Fischell Department of Bioengineering department. Recommended: BSCI330 and BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE411 or CHBE487.

A review of the fundamental principles involved in the design of engineered tissues and organs. Both biological and engineering fundamentals will be considered.

0101	Beatrice Kondo	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ATL 2400

BIOE414 **Macroscale Biomechanics**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, MATH246, and ENES102. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE414 or BIOE489Z. Formerly: BIOE489Z.

An overview of current problems in movement biomechanics. After taking this course, students will be able to 1) Describe the engineering tools needed to study human movement 2) Recognize a variety of clinical research and practice, and 3) Use the framework provided by the course to pursue their own self-teaching and research on these topics. Topics covered include muscle mechanics, joint mechanics, EMG and EEG signal applications, ultrasonography and elastography, anthropometry, human movement 3-D kinematics, inverse dynamics, forward dynamics, work, power and energy. Biomechanics tools will be used to investigate clinical problems. Students will also do research projects on related topics.

0101	Li-Qun Zhang	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	AJC 2121

BIOE437 **Computer-Aided Design in Bioengineering**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE437, BIOE689V, ENME414, ENME272, or ENAE488D. Formerly: BIOE689V.

Introduction to Computer-Aided Design (CAD). Lecture topics will summarize design methodology, review best-practices in hardware development, and discuss engineering applications. The course will culminate in a student-selected project leveraging CAD.

0101	Kyung Koh	Seats (Total: 30)
	Tu 5:00pm - 8:00pm	KEB 2111

BIOE442 **Python: Introduction to Programming and Data Analysis**

(Perm req)

Prerequisite: BIOE241, BIOE120, BIOE121, and MATH241; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489A or BIOE442. Formerly: BIOE489A.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

0101	Bahaa Ghammraoui	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AJC 2119

BIOE447 **Clinical Experiences in Bioengineering**

(Perm req)

Prerequisite: BIOE221. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489O or BIOE447. Formerly: BIOE489O.

An immersion experience in the clinical settings in which biomedical engineering strategies, technologies, and practices are applied. An emphasis will be placed on both clinical problems and engineering solutions.

0101	Catherine Kuo	Seats (Total: 20)	
	Tu 8:00am - 10:50am	AJC 2119	

BIOE453 **Biomaterials**

(Perm req)

Prerequisite: CHEM231, MATH246, CHEM232, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of the structure and function of natural biomaterials, and cell-extracellular matrix interactions. Study physical properties of synthetic biomaterials for biomedical applications. Understanding molecular level interactions between biomolecules and biomaterials to design novel biomaterials with desirable characteristics. Application of biomaterials as implants, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds will be covered.

0101	Tao Lowe	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm	AJC 2134	

BIOE457 **Biomedical Electronics & Instrumentation**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, PHYS261, MATH246, and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students learn fundamental concepts of electronics, assembly of electronic components into functional circuits, and integration of functional electronic devices and circuits into a system. In the lab component, students will learn to assemble and evaluate circuits and systems.

0101	Ian White	Seats (Total: 35)	
	MWF 10:00am - 10:50am	IRB 1116	
	W 11:00am - 12:50pm	AJC 1120	Lab

0102	Ian White	Seats (Total: 35)	
	MWF 10:00am - 10:50am W 3:00pm - 4:50pm	IRB 1116 AJC 1120	Lab

BIOE461 **Synthetic Biology and Biological Engineering**

(Perm req)

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Recommended: Completion of BSCI222 and/or BSCI330 recommended. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students are introduce to the scientific foundation and concepts of synthetic biology and biological engineering. Current examples that apply synthetic biology to fundamental and practical challenges will be emphasized. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

0101	Catherine Spirito	Seats (Total: 40)
	MWF 12:00pm - 12:50pm	ESJ 1309

BIOE486 **Capstone Design II**

(Perm req)

Prerequisite: Must have completed BIOE485 in the immediately preceding semester. Restriction: Senior standing; and must be in Engineering: Bioengineering program; and permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE486 or ENBE486. Formerly: ENBE486.

This is the second part of the senior capstone design course. This part is independent instruction where faculty mentoring each project team works with students to order supplies, fabricate their proposed design under BIOE485, test the design, write the report and present it to their fellow seniors and board of faculty mentors. Students are taught to convert the blue print of a design to actual device and test it.

0101	Jenna Mueller	Seats (Total: 130)
	M 4:00pm - 4:50pm M 5:30pm - 8:00pm	EGR 1202 AJC 1106

BIOE488A **Research Methods in Bioengineering; Molecular Biology**

(Perm req)

Exploring a variety of research methods in the field of Bioengineering.

Prerequisite: BIOE120, BIOE121, and BSCI330. Restriction: Permission of department. This course prepares students for a broad range of opportunities by delivering a practical, hands-on laboratory experience that mirrors the real world of research. Students will independently investigate a novel topic related to biomedicine; learn the science and theory behind commonresearch methods; and apply those fundamental techniques, protocols, assays, and technologies to their own experiments. Some of the techniques utilized in the course include: microbiology, protein quantification assays, molecular cloning, PCR, DNA sequencing, novel drug discovery andscreening. This course is designed to prove the same valuable experienceand guidance you would receive in a research lab.

0101	Brian Blair	Seats (Total: 8)
	M 12:00pm - 1:15pm	AJC 1121
	W 4:00pm - 5:50pm	AJC 1121

BIOE489D **Special Topics in Bioengineering; Intro to Molecular and Cellular Bioengineering**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisites: BIOE241 and BSCI330, or Permission of the Fischell Department of Bioengineering

0101	William Bentley	Seats (Total: 10)
	TuTh 9:30am - 10:45am	AJC 2132

BIOE489F **Special Topics in Bioengineering; CFD/FEA Applications in Bioengineering**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisites: BIOE120, BIOE121, MATH241, BIOE241; recommended: BIOE489C.Covers Computational Fluid Dynamics (CFD) and Finite Element Analysis (FEA) as applicable to Bioengineering.

0101	Frank Modica	Seats (Total: 20)
	W 6:00pm - 9:00pm	KEB 2107

BIOE489H **Special Topics in Bioengineering; BIOE Honors Seminar**

(Perm req)

Exploring a variety of topics with Bioengineering.

0101	Gregg Duncan	Seats (Total: 30)
	Contact instructor or department for details.	

BIOE489J **Special Topics in Bioengineering; Advanced Manufacturing Laboratory (AML)**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE457. Credit only granted for ENEE419M, ENMA489M, or BIOE489J. An interdisciplinary course designed to provide students with an overview of key processes, technology, and manufacturing techniques involved in fabricating advanced devices and systems. Students will be exposed to state-of-the-art fabrication technologies including soft lithography, 3Dprinting, hybrid manufacturing, material functionalization, and systems integration. In addition to developing a theoretical understanding in the classroom, students will gain hands-on fabrication and characterization experience of systems that can interface with complex environments.

0101	Kevin Daniels	Seats (Total: 4)	
	TuTh 12:30pm - 1:20pm	EGR 2116	
	F 9:00am - 11:50am	KEB 1135	Lab

BIOE489Q **Special Topics in Bioengineering; Engineering Approaches to Photomedicine**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prereqs: BIOE120, BIOE121, BIOE241, and MATH246. Introduces students to the fundamentals of photophysics, photochemistry, and photobiology. Engineering of selective photosensitizers, optically active nanomedicine and alternative light sources for photodynamic therapy, photothermal therapy, and imaging will be covered. Other light-based therapies, including laser surgery, low-level light therapy,and light-activated tissue repair and regeneration, will also befeatured. The course will briefly cover radiation, magnetic, and ultrasound-based technologies to highlight other extrinsic activation mechanisms for drugdelivery and phototherapy. Students will have the opportunity to review and present research articles on these emerging phototherapies and participate in lab experiments to gain a greater awareness of current advancements and refine skills in literature review.

0101	Huang Chiao Huang	Seats (Total: 15)
	TuTh 9:30am - 10:45am	AJC 2121

BIOE489R **Special Topics in Bioengineering; Protein Engineering**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120 and BIOE232. Credit only granted for: CHBE497, BIOE489R, or ENCH648P.

0101	Amy Karlsson	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	AJC 2119

BIOE489T **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120. Restrictions: Permission of the Fischell Department of Bioengineering. Credit only granted for: BIOE489T, BIOE689E, or CHBE474.

0101	Deborah Goldberg	Seats (Total: 24)	
	TuTh 11:00am - 12:15pm	AJC 2121	

BIOE606 **BIOE Graduate Studies II**

(Perm req)

Restriction: Must be in ENGR: PhD Only-Bioengineering (Doctoral) program.

Second semester continued acclimation to the bioengineering graduate program. Students gain exposure to departmental research through lab rotation and to current research in the field through seminar.

0101	Jose Aranda-Espinoza	Seats (Total: 30)	
	F 9:00am - 9:50am	AJC 2121	
	F 10:00am - 10:50am	AJC 2121	Discussion

BIOE608 **Bioengineering Seminar Series**

(Perm req)

A variety of topics related to Bioengineering will be presented in weekly seminars.

Restriction: Must be in one of the following programs (ENGR: PhD Only-Bioengineering (Master's); ENGR: PhD Only-Bioengineering (Doctoral)).

0101	Katharina Maisel, Jenna Mueller	Seats (Total: 25)	
	F 9:00am - 10:50am	AJC 2132	

BIOE611 **Advanced Tissue Engineering**

(Perm req)

Prerequisite: Must have completed at least one biology course; and MATH241. Or permission of ENGR-Fischell Department of Bioengineering department. Recommended: BSCI330 and BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

A review of the fundamental principles involved in the design of engineered tissues and organs. Both biological and engineering fundamentals will be considered.

0101	Beatrice Kondo	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	ATL 2400	

BIOE654 **Physiology for Bioengineers**

(Perm req)

Restriction: Restricted to Master's of Engineering - Bioengineering students; or permission of Fischell Department of Bioengineering. Credit only granted for: BIOE654 or BIOE658P. Formerly: BIOE658P.

Bioengineering-based designs of biomaterials, biomedical devices, imaging and drug delivery agents, tissue engineering, and prosthesis (among others), offer the opportunity to improve health care. This course is aimed at providing biological knowledge to lead bioengineering designs on the basis of biocompatibility and to provide tools to assess their patho-physiological impact in biological systems.

0101	Yantenew Gete TuTh 6:00pm - 7:15pm	Seats (Total: 15) AJC 2132
BI01	Yantenew Gete Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE658E **Special Topics in Bioengineering (M.Eng.); Biomedical Device Development**

(Perm req)

Special topics in Bioengineering.

For Master of Engineering students only or with permission of department. Credit only granted for BIOE658E or BIOE689W.

0101	Martha Wang TuTh 11:00am - 12:15pm	Seats (Total: 15) AJC 2132
BI01	Martha Wang Class time/details on ELMs	Seats (Total: 15) ONLINE

BIOE658I **Special Topics in Bioengineering (M.Eng.); Machine Learning**

(Perm req)

Special topics in Bioengineering.

Prerequisites: BIOE658J and BIOE651; or students who have taken courses with comparable content may contact the department. This course will instruct students in the fundamentals of machine learning methods through examples in biological phenomenon and clinical data analysis. This course is designed to share knowledge of real-world data science and aid to learn complex machine learning theory, algorithms, and coding libraries in a simple way. The structure of this course is designed to walk students step-by-step into the world of machine learning. The course will cover major topics in Machine Learningsuch as supervised learning (i.e., regression, classification), unsupervised learning, deep learning, dimensionality reduction, and model selection and boosting. This course is packed with practical machine learning exercises that arebased on real-life examples. Studentswill learn machine learning theory, but they will also get hands-on practice building their models using programming tools such as Python and R.

BI01	Bardia Yousefi MW 6:00pm - 7:15pm	Seats (Total: 20) ONLINE

BIOE689 **Special Topics in Bioengineering**

(Perm req)

Research Oriented Individual Instruction course.

Contact department for information to register for this course.

BIOE689A **Special Topics in Bioengineering; Engineering Approaches to Photomedicine**

(Perm req)

Research Oriented Individual Instruction course.

Credit only granted for BIOE489Q or BIOL689A. Students are introduced to the fundamentals of photophysics, photochemistry, and photobiology. Engineering of selective photosensitizers, optically active nanomedicine and alternative light sources for photodynamic therapy, photothermal therapy, and imaging will be covered. Other light-based therapies, including laser surgery, low-level light therapy, and light-activated tissue repair and regeneration, will also be featured. The course will briefly cover radiation, magnetic, and ultrasound-based technologies to highlight other extrinsic activation mechanisms for drug delivery and phototherapy. Students will have the opportunity to review and present research articles on these emerging phototherapies and participate in lab experiments to gain a greater awareness of current advancements and refine skills in literature review.

0101	Huang Chiao Huang TuTh 9:30am - 10:45am	Seats (Total: 20) AJC 2121

BIOE689D **Special Topics in Bioengineering; Intro to Molecular and Cellular Bioengineering**

(Perm req)

Research Oriented Individual Instruction course.

0101	William Bentley TuTh 9:30am - 10:45am	Seats (Total: 10) AJC 2132

BIOE689E **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Research Oriented Individual Instruction course.

Restrictions: Permission of the Fischell Department of Bioengineering.

0101	Deborah Goldberg TuTh 11:00am - 12:15pm	Seats (Total: 1) AJC 2121

BIOE689W **Special Topics in Bioengineering; Mastering Scientific Writing: From Grants to Publications**

(Perm req)

Research Oriented Individual Instruction course.

5estrictions: Permission of the Fischell Department of Bioengineering. Will equip students with essential skills for effective scientific communication. The course covers the distinctions between scientific and other writing styles, persuasive and factual writing, storytelling, and scientific grammar. Students learn to craft clear and concise sentences, structure their work logically, formulate hypotheses, and communicate science to both scientific and lay audiences. Through hands-on practice,feedback, and expert guidance, the goal is to enhance scientific writing abilities for publishing, presentations, and science communication.

0101	Erika Moore W 4:00pm - 6:30pm	Seats (Total: 20) AJC 2134

BIOE689X **Special Topics in Bioengineering; Macroscale Biomechanics**

(Perm req)

Research Oriented Individual Instruction course.

Topics covered include muscle mechanics, joint mechanics, EMG and EEG signal applications, ultrasonography and elastography, anthropometry, human movement 3-D kinematics, inverse dynamics, forward dynamics, work, power and energy. Biomechanics tools will be used to investigate clinical problems.

0101	Li-Qun Zhang TuTh 2:00pm - 3:15pm	Seats (Total: 10) AJC 2121

BIOE799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

BIOE898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

BIOE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BIOI Bioinformatics and Computational Biology Spring 2024

BIOI603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, MSML603, MSQC603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Kemal Davaslioglu	Seats (Total: 50)
	M 6:00pm - 8:45pm	PLS 1130
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOI605 **Data Sources and Data Management in Bioinformatics**

An introduction to the different types of data generated for bioinformatics analyses and data management principles required for scientific rigor and reproducibility. Data sources include, but are not limited to, sequencing data, 'omics data (e.g., proteomics, metabolomics, lipidomics), imaging data, and clinical data. Data organization will cover topics such as management and curation of metadata, downloading data from and submitting data to public repositories, and using databases versus spreadsheets and tables.

PCS1	Michael Cummings	Seats (Total: 10)
	Th 6:00pm - 8:45pm	IRB 2207
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOI606 **Sequence Alignment**

In-depth coverage of biological sequence alignment including the following: definitions, algorithms, and statistics for local, global, pairwise, and multiple alignments; scoring schemes; BLAST, BLAST variants, and similar programs; motif finding; and related topics.

PCS1	Stephen Altschul	Seats (Total: 10)
	Tu 6:00pm - 8:45pm	IRB 2207
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOI607 **Data Structures and Algorithms for Bioinformatics**

An introduction to the fundamental data structures and algorithms underlying many parts of Bioinformatics. Standard data structures for efficient indexing and sequence search will be covered, including the suffix array and the FM-index, as will alignment-free methods for sequence comparison. This course will also introduce the fundamental algorithms in computational phylogenomics and biological network analysis. Finally, bioinformatics oriented applications of classic unsupervised learning algorithms (e.g., clustering and dimensionality reduction) and database techniques (e.g., sorting, selection, joining) will be examined. The focus will be both on formal understanding of computational efficiency as well as the practical applications of these concepts.

PCS1	Robert Patro	Seats (Total: 10)
	W 6:00pm - 8:45pm	IRB 2207
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

BIOL Biology Spring 2024

BIOL609 **Special Problems in Biology**

One seminar per week for each subject selected: A-Cell Biology; B-Developmental Biology; C-Estuarine and Marine Biology; D-Genetics; E-Parasitology; F-Physiology; G-Systematics and Evolutionary Biology; I-Behavior; J-General; K-Endocrinology; L-Ecology.

Contact department for information to register for this course.

BIOL705 **Statistics & Modeling for Biologists**

Restriction: Must be in the Biological Sciences Graduate program; or permission of Biology Department. Credit only granted for: BIOL705 or BIOL709F. Formerly: BIOL709F.

An overview of essential probability and statistics using R with a focus on biological problems. Topics include: parameter estimation (likelihood, Bayesian), confidence intervals and hypothesis testing, multiple testing, experimental design and power analysis, and resampling-based measures of uncertainty. Practical use of computers will be emphasized.

0101	Philip Johnson	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	ESJ 0215

BIOL708C **Advanced Topics in Biology; Evolutionary Genomics**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BSCI476 and BIOL708C. Application of genomics to understanding evolutionary processes, including genome evolution, organismal evolution, genomic diversity across the tree of life, human evolution and disease. Relevant concepts of evolutionary genetics and genome biology will be covered.

0101	Carlos Machado	Seats (Total: 7)
	TuTh 11:00am - 12:15pm	PLS 1115

BIOL708D **Advanced Topics in Biology; Ecology and Evolution of Infectious Disease**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BSCI477 or BIOL708D. Parasites are a ubiquitous feature of ecological communities, and can strongly impact population growth, extinction risk, community structure and biodiversity, as well as pose serious risks to human health and food security. This course will cover basic principles of disease ecology, including; the diversity of parasitic organisms and transmission modes, host and pathogen traits for defense and infection, mathematical models of disease spread, the impacts of disease at different ecological scales, and host-parasite co-evolution. In the latter half of the course we will apply these basic concepts to current real-world problems in disease ecology including emerging infectious diseases in humans, wildlife and agriculture. We will use examples from plants, animals and humans to about an equal degree. This course will have a strong quantitative focus.

0101	Emily Bruns	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	ESJ 1309

BIOL708E **Advanced Topics in Biology; Diseases of the Nervous System**

Lectures, experimental courses and other special instructions in various zoological subjects.

Cross-listed with NACS728N. Credit only granted for BSCI452, BIOL708E, and NACS728N. An advanced course covering the neuroanatomy, function, and organization of the nervous system and its implication for pathology and disease.

0101	Chan Lin	Seats (Total: 8)
	TuTh 2:00pm - 3:15pm	BPS 0283

BIOL708R **Advanced Topics in Biology; Population Ecology**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BSCI462 and BIOL708R. Theory of population growth and regulation, life tables, and theory of competition and predation, evolution in ecological settings, community structure and dynamics.

0101	Bill Fagan	Seats (Total: 5)
	TuTh 9:30am - 10:45am	BPS 1238

BIOL708V **Advanced Topics in Biology; Hearing II, Translational Issues**

Lectures, experimental courses and other special instructions in various zoological subjects.

Cross-listed with NACS728V. Credit granted for BIOL708V or NACS728V. Orient students toward the translational research in the Hearing sciences; to provide examples of how scientists incorporate applied/translational aspects into their research; to provide training in research development with a translational perspective. Classes will consist of presentations by scientists in the field, followed by discussion of reading and presentations by students. Topics include acoustic categories in auditory cortex, cortical plasticity, high order cortex EEG, speech perception; neural coding of speech in the brain, stem, auditory perception and psychophysics, speech processing, aging & auditory processing, cochlear implants and binaural processing, language acquisition, and other auditory prostheses.

0101	Catherine Carr	Seats (Total: 10)	
	Tu 11:00am - 3:00pm	BPS 1230	

BIOL708W **Advanced Topics in Biology; Animal Communication**

Lectures, experimental courses and other special instructions in various zoological subjects.

Credit only granted for BSCI401, BSCI338W, or BIOL708W. Examining the mechanisms by which animals produce and receive signals in each sensory modality; and quantifying the type and amount of information conveyed in signals and how animals attend to such information.

0101	Gerald Wilkinson	Seats (Total: 3)	
	TuTh 3:30pm - 4:45pm	ESJ 1309	

BIOL709V **Selected Advanced Topics in Biology; Biology of Vision**

Lectures, experimental courses and other special instructions in various biological subjects.

Credit only granted for BSCI403 and BIOL709V. The physical, molecular, and neural basis of vision.

0101	Juan Angueyra	Seats (Total: 5)	
	MW 2:00pm - 3:15pm	BPS 1236	

BIOL799 **Master's Thesis Research**
Contact department for information to register for this course.

BIOL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

BIOL899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BIOM Biometrics Spring 2024

BIOM301 **Introduction to Biometrics**

Prerequisite: MATH113 or MATH115.

Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

0101	Christine Hakenkamp	Seats (Total: 28)	
	TuTh 12:30pm - 1:20pm	ESJ 0202	
	M 9:00am - 9:50am	ANS 0473	Discussion

0102	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 10:00am - 10:50am	Seats (Total: 28) ESJ 0202 ANS 0473	Discussion
0103	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 11:00am - 11:50am	Seats (Total: 28) ESJ 0202 ANS 0473	Discussion
0104	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 8:30am - 9:20am	Seats (Total: 28) ESJ 0202 ANS 0473	Discussion
0105	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 28) ESJ 0202 ANS 0473	Discussion
0106	Christine Hakenkamp TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 28) ESJ 0202 ANS 0473	Discussion
0107	Christine Hakenkamp TuTh 12:30pm - 1:20pm M 12:00pm - 12:50pm	Seats (Total: 28) ESJ 0202 ANS 0473	Discussion
ESG1	Christine Hakenkamp M 10:00am - 10:50am F 10:00am - 11:40am *Restricted to students in the Biological Sciences Program at USG.*	Seats (Total: 30) BLD4 1308 BLD4 5308	Discussion

BIOM602 **Biostatistics II**

Prerequisite: BIOM601 or BIOM405.

The principles of experimental design and analysis of variance and covariance.

0101	Jiuzhou Song MW 11:30am - 12:45pm Th 11:00am - 1:00pm	Seats (Total: 28) ANS 0412 ANS 0473	Lab

BIOM688A **Topics in Biometrics; Consulting Experience in Biometrics**

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

Contact department for information to register for this course.

BIOM698 **Special Problems in Biometrics**

Individual study of a particular topic in biostatistics or biomathematics.

Contact department for information to register for this course.

BIPH Biophysics Spring 2024

BIPH698L **Biophysics Seminar; Biophysics**

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	IPT 1116

BIPH699 **Research in Biophysics**

Supervised research in biophysics laboratories. Rotations through several laboratories prior to a choice of laboratory for a research assistantship.

Contact department for information to register for this course.

BIPH799 **Master's Thesis Research**
Contact department for information to register for this course.

BIPH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

BIPH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BISI Biological Sciences Spring 2024

BISI632 **Genetics I: Gene Expression**

Restriction: Must be in the Biological Sciences Graduate Program (BISI); or permission of instructor. Credit only granted for: BISI632 or CBMG688F. Formerly: CBMG688F.

Molecular mechanisms of gene expression, with an emphasis on gene regulation in both prokaryotic and eukaryotic systems. Approximately 2/3 of the classes will be comprised of didactic lectures. The remaining portion of the course will consist of student-led experimental design sessions and a student-led proposal review panel.

0101	Jonathan Dinman, Jiqiang Ling	Seats (Total: 25)
	Meets January 24, 2024 - March 9, 2024	
	TuTh 4:00pm - 6:00pm	MCB 2119

BISI699 **Special Problems in Biological Sciences**

(Perm req)

Independent study with a specific faculty instructor from the Biological Sciences Program (BISI). Often involves original research in a laboratory or computational setting.

Contact department for information to register for this course.

BISI699G **Special Problems in Biological Sciences; Sustainability of Socio-Environmental Systems**

Independent study with a specific faculty instructor from the Biological Sciences Program (BISI). Often involves original research in a laboratory or computational setting.

Cross-listed with ENTM699G. Credit only granted for ENTM699G or BISI699G. The seminar will begin with a focus on socio-environmental system dynamics, what they have in common with other complex adaptive systems and how solving environmental problems requires an integrated consideration of both the social and ecological dimensions. We will explore theories, concepts, and methods that different disciplines bring to this topic and learn about qualitative and quantitative approaches to grapple with problems of sustainability.

0101	Margaret Palmer	Seats (Total: 15)
	Contact instructor or department for details.	

BISI712 **Responsible Conduct of Research for Biologists**

Credit only granted for: BISI712, BISI688B, or CBMG688B. Formerly: BISI688B and CBMG688B.

An exploration of the ethical dimensions associated with the responsible conduct of scientific research focusing on providing students with practical insights into the existing norms and expectations of working scientists.

0201	Charles Delwiche	Seats (Total: 15)
	Meets January 24, 2024 - March 13, 2024	
	W 4:00pm - 6:00pm	BRB 3101

BISI799 **Master's Thesis Research**
Contact department for information to register for this course.

BISI898 **Pre-Candidacy Research**

Restriction: Must be in Biological Sciences (Doctoral) program.

Contact department for information to register for this course.

BISI899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BMGT Business and Management Spring 2024

BMGT099 **Internship Seminar**

(Perm req)

Complements students' supervised work experiences. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Contact department for information to register for this course.

BMGT110 **Introduction to the Business Value Chain**

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

0101	Jeff Miller MW 2:00pm - 3:15pm	Seats (Total: 250) VMH 1524	

BMGT110S **Introduction to the Business Value Chain**

Restricted to College Park Scholars in Business, Society, and the Economy.

0101	Oliver Schlake MW 9:30am - 10:45am	Seats (Total: 47) CCC 1111	
0201	Oliver Schlake MW 11:00am - 12:15pm	Seats (Total: 47) CCC 1111	

BMGT190H **Introduction to Design and Quality**

Restriction: Must be in the Quest program. Cross-listed with: ENES190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Cross-listed with ENES190H. Credit granted for ENES190H or BMGT190H.

0101	Benjamin Huffman, Christopher Troilo TuTh 12:30pm - 1:45pm Tu 6:00pm - 7:50pm	Seats (Total: 45) ESJ 2212 ESJ 2101	 Discussion

BMGT210 **Foundations of Accounting for Non Business Majors**

Restriction: Must not have completed BMGT221; and must not be in a major in the R.H. Smith School of Business. Credit only granted for: (BMGT220 and BMGT221) or BMGT210. Additional information: Does not apply to a Smith School degree. Students pursuing a Smith School minor who have completed both BMGT220 and BMGT221 may substitute these courses for BMGT210. Credit will not be given for both BMGT210 and the combination of BMGT220 and BMGT221.

Provides an understanding of the common statements that report a company's profitability and financial health, and are useful to all economic agents who are engaged with the firm. Students will also recognize and understand managerial accounting as a system for accumulating and modeling information to support decision-making.

0101	Darlene Dennison Class time/details on ELMs	Seats (Total: 180) ONLINE	

BMGT220 **Principles of Accounting I**

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to students with 24 credit hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Progyan Basu TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0102	Progyan Basu TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0103	Progyan Basu TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0104	Progyan Basu TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0105	Progyan Basu TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0201	Progyan Basu TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1333	 Discussion
0202	Progyan Basu TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1333	 Discussion
0203	Progyan Basu TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1333	 Discussion

0204	Progyan Basu TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1333	 Discussion

BMGT220L **Principles of Accounting I**

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restriction: Must be a Smith Business Leadership Fellows (SBLF); College Park Scholars - Business, Society and the Economy (CPBE); and Interdisciplinary Business Honors (HBUS) or any BMGT major with 24 or more credits.

0101	Rebecca Hann MW 11:00am - 12:15pm	Seats (Total: 40) VMH 2511
0201	Jingyi Qian MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 2511
0301	Jingyi Qian MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 2511

BMGT221 **Principles of Accounting II**

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restriction: Restricted to students with 24 credit hours completed. Where a BMGT exam conflicts with another regularly scheduled class, the student will be provided a makeup exam.

0101	Michael McMillan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 45) VMH 1524 VMH 1303	 Discussion
0102	Michael McMillan TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 45) VMH 1524 VMH 1303	 Discussion
0103	Michael McMillan TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 45) VMH 1524 VMH 1303	 Discussion

0201	Michael McMillan TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0202	Michael McMillan TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0203	Michael McMillan TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0204	Michael McMillan TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 45) VMH 1524 VMH 1307	 Discussion
0301	Michael McMillan TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 45) VMH 1524 VMH 1336	 Discussion
0302	Michael McMillan TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 45) VMH 1524 VMH 1336	 Discussion
0303	Michael McMillan TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 45) VMH 1524 VMH 1336	 Discussion

BMGT230 Business Statistics

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0101	Erich Studer-Ellis MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1335	 Discussion

0102	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1335	Discussion
0103	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 28) VMH 1524 VMH 1335	Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1335	Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 28) VMH 1524 VMH 1335	Discussion
0106	Erich Studer-Ellis MW 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1335	Discussion
0201	Erich Studer-Ellis MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1314	Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 32) VMH 1524 VMH 1314	Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1314	Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 31) VMH 1524 VMH 1314	Discussion
0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 35) VMH 1524 VMH 1314	Discussion

0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 33) VMH 1524 VMH 1314	Discussion
0301	Erich Studer-Ellis MW 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1418	Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1418	Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 32) VMH 1524 VMH 1418	Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 23) VMH 1524 VMH 1418	Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 25) VMH 1524 VMH 1418	Discussion
0306	Erich Studer-Ellis MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1418	Discussion

BMGT230B **Business Statistics**

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Restricted to BMGT majors. Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided a makeup exam.

0103	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 7) VMH 1524 VMH 1335	Discussion

0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 7) VMH 1524 VMH 1335	Discussion
0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 3) VMH 1524 VMH 1314	Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 4) VMH 1524 VMH 1314	Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 2) VMH 1524 VMH 1314	Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 3) VMH 1524 VMH 1418	Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 12) VMH 1524 VMH 1418	Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 10) VMH 1524 VMH 1418	Discussion

BMGT230L **Business Statistics**

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Restricted to Smith Business Leadership Fellows (SBLF); College Park Scholars - Business, Society and the Economy (CPBE); and Interdisciplinary Business Honors (HBUS).

0101	Ilya Ryzhov MW 9:30am - 10:45am	Seats (Total: 40) VMH 2511	

BMGT262 **The Enterprising Leader**

Designed to help students develop their leadership skills in order to identify their personal and professional purpose with an entrepreneurial mindset, and create strategies that will help them develop their abilities and achieve their aspirations by collaborating within teams and organizations. Students will apply insights from recent scholarship in entrepreneurship, leadership and strategic management to themselves in order to identify solutions to problems they find meaningful to solve in their own world. This self-discovery course will introduce students to the "CEO of ME, Inc." framework and tools such as the strategic initiatives matrix and business model canvas that they can use to help guide the choices that lie ahead, and develop collaborative, win-win relationships. In doing so, students will learn how to unlock the value of business in society and develop entrepreneurial and leadership skills that enable personal happiness and upward mobility.

0101	Margaret Malewski TuTh 11:00am - 12:15pm	Seats (Total: 40) ARC 1103

BMGT262L **The Enterprising Leader**

Designed to help students develop their leadership skills in order to identify their personal and professional purpose with an entrepreneurial mindset, and create strategies that will help them develop their abilities and achieve their aspirations by collaborating within teams and organizations. Students will apply insights from recent scholarship in entrepreneurship, leadership and strategic management to themselves in order to identify solutions to problems they find meaningful to solve in their own world. This self-discovery course will introduce students to the "CEO of ME, Inc." framework and tools such as the strategic initiatives matrix and business model canvas that they can use to help guide the choices that lie ahead, and develop collaborative, win-win relationships. In doing so, students will learn how to unlock the value of business in society and develop entrepreneurial and leadership skills that enable personal happiness and upward mobility.

Restricted to Smith Business Leadership Fellows (SBLF).

0101	Jacqueline Manger TuTh 9:30am - 10:45am	Seats (Total: 40) TWS 1100
0201	Margaret Malewski TuTh 9:30am - 10:45am	Seats (Total: 40) TWS 1100

BMGT264 **SBLF Capstone Professional Practicum**

Prerequisite: BMGT162, BMGT262 and BMGT263.

Provides students in the Smith Business Leadership Fellows Program (SBLF) with a capstone opportunity to learn in teams in a real-world setting. Companies engage teams of SBLF students with meaningful organizational challenges and dedicate resources to help students address these problems. Student teams enhance their skills in critical thinking, collaboration, negotiation, quality management and communication. These teams then apply these skills to offer value to a client. In the process, students will improve their teamwork skills.

Restricted to Smith Business Leadership Fellows (SBLF).

0101	Christine Schaaf W 5:00pm - 7:40pm	Seats (Total: 40) VMH 1418

BMGT289A **Social Enterprise: Changing the World through Innovation and Transformative Action**

In this course, students will hear from real-life social entrepreneurs, explore current day social issues of sustainability, climate change, leadership, disruptive innovations, and create or blueprint business plans to generate positive social change. This class will focus on innovative thinking skills, personal narratives, and social interaction strategies and plans.

0101	Gerald Suarez M 1:00pm - 3:40pm	Seats (Total: 60) ESJ 2309
0201	Gerald Suarez W 2:00pm - 4:40pm	Seats (Total: 60) ESJ 2309

BMGT289B **How Do Innovators Think?**

In this course, students will learn about: a) the innovation process and the role of the individual in generating innovations and b) the attributes, habits, and skills of individuals who have successfully started innovative new businesses or significantly added value to an existing company.

This class will have an additional 5 meetings on Monday evenings from 5-7pm.

0101	Clarence Wesley M 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 65) TWS 0310 ONLINE
0201	Clarence Wesley W 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 65) TWS 0310 ONLINE

BMGT289D **Frauds, Scams, and Thefts: What, How and Why?**

"Why" does fraud happen? "How" does society address fraud? And "What" can you do to avoid and prevent fraud in your personal and future career life? This course is designed to give future professionals and managers of all disciplines a general background of fraud. Topics include the psychology of fraud, the mechanics of fraud, the legal landscape, securities fraud, cybercrime, and what all of us should know to protect ourselves from becoming victims of fraud. Additionally, students experience 21st century lessons in fraud examination that have practical application to our daily lives: avoiding cognitive biases, interviewing techniques, basic business controls, and opening our minds to see what others might miss...the red flags of fraud.

0101	Samuel Handwerger MW 3:30pm - 4:45pm	Seats (Total: 65) ESJ 1215

0201	Samuel Handwerger	Seats (Total: 65)
	MW 5:00pm - 6:15pm	ESJ 1215

BMGT289E **Entrepreneurial Thinking for Non-Business Majors: How Not to Miss Great Opportunities Your Life Throws at You**

In this course, students learn how to analyze the world around them and then notice and define new trends, emerging problems, impending gaps, and how to turn these into exciting opportunities by providing creative solutions. Students will have a chance to not only sharpen their critical thinking skills, but also learn how to take initiative, develop a working solution, identify and resolve conflicts, and be confident and persistent, yet flexible enough to respond to changes. Student teams identify a compelling problem in present day life and then propose a creative solution taking into account possible difficulties in implementation. In addition, students will also be given problems on a much smaller scale and asked to create and present a workable solution. Students will be exposed to how a visionary's mind works and the creative solution process. In addition, students will also learn how entrepreneurial thinking can improve their day-to-day life.

0101	Oliver Schlake	Seats (Total: 65)
	MW 3:30pm - 4:45pm	TWS 1100

BMGT289I **Why Good Managers Make Bad Decisions**

This course provides an overview of the concepts, approaches, and vocabulary of evidence-based management (EBM) and provides an understanding of how experts in many disciplines can employ evidenced based decision making. EBM is an emerging movement in business to explicitly use the current best information in management decision making with special emphasis on relevant scientific findings and unbiased organizational facts. The course stresses how individuals practicing EBM learn how to rethink their approaches to data and knowledge in order to make more effective decisions.

0101	Jeff Miller	Seats (Total: 240)
	MW 3:30pm - 4:45pm	VMH 1524

BMGT298J **Special Topics in Business and Management; Personal Financial Success During College**

Introductory special topics in business and management.

0101	Michael McMillan	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

BMGT298K **Special Topics in Business and Management; Personal Financial Success After College**

Introductory special topics in business and management.

0101	Michael McMillan	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

BMGT301 **Introduction to Information Systems**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Sections 0101-0501 Restricted to Information Systmes majors with 45 credit hours and other BMGT majors with 53 credit hours.

0101	Zeinab Karake TuTh 9:30am - 10:45am	Seats (Total: 65) VMH 1505
0201	Bharti Motwani TuTh 11:00am - 12:15pm	Seats (Total: 65) VMH 1505
0301	Zeinab Karake TuTh 12:30pm - 1:45pm	Seats (Total: 65) VMH 1505
0401	Bharti Motwani TuTh 3:30pm - 4:45pm	Seats (Total: 60) VMH 1520
0501	Zeinab Karake MW 11:00am - 12:15pm	Seats (Total: 65) VMH 1412
ESG1	Paul Shapiro TuTh 11:00am - 12:15pm *Meets in a blended format. Approximately half of the scheduled face-to -face course meetings will be replaced by asynchronous online activities, including video lectures, quizzes, and graded assignments. Restricted to Junior BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD3 2230

ESG2	Paul Shapiro TuTh 12:30pm - 1:45pm	Seats (Total: 60) BLD3 2230
	Meets in a blended format. Approximately half of the scheduled face-to -face course meetings will be replaced by asynchronous online activities, including video lectures, quizzes, and graded assignments. Restricted to Junior BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT301F **Introduction to Information Systems**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to second year students in the Smith School's Smith Start Program (FPFF).

FP01	Zeinab Karake MW 12:30pm - 1:45pm	Seats (Total: 65) VMH 1412
FP02	Zeinab Karake MW 3:30pm - 4:45pm	Seats (Total: 65) VMH 1412

BMGT302 **Essential Programming Skills for Business Analytics**

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in the Computer Science major.

The course introduces structured and object-oriented programming and its applications in business functions and analytics. Students will apply problem-solving skills to create software solutions using programming logic and data structures. The course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to Information Systems majors with 45 credits completed and other BMGT majors and Business Analytics minors with 53 credits completed. Not open to Computer Science.

0101	Woei-jyh Lee TuTh 9:30am - 10:45am	Seats (Total: 24) VMH 3522

0201	Wen Wang MW 8:00am - 9:15am	Seats (Total: 30) VMH 3505
0301	John Bono MW 12:30pm - 1:45pm	Seats (Total: 24) VMH 3522
0401	John Bono MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 2203
0501	Wen Wang MW 3:30pm - 4:45pm	Seats (Total: 24) VMH 3522
0601	Wen Wang MW 5:00pm - 6:15pm	Seats (Total: 30) VMH 3505

BMGT310 **Intermediate Accounting I**

Prerequisite: BMGT221.

Comprehensive analysis of financial accounting topics related to financial statement preparation and external reporting.

0101	Musa Subasi MW 12:30pm - 1:45pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1314
0201	Lu Zhang MW 2:00pm - 3:15pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1415
0301	Musa Subasi MW 2:00pm - 3:15pm *Restricted to Accounting and Finance majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1418

BMGT311 **Intermediate Accounting II**

Prerequisite: BMGT310.

Continuation of BMGT310.

0101	Patrick McNamee TuTh 9:30am - 10:45am *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 45) VMH 1335

0201	Patrick McNamee MW 11:00am - 12:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 45) VMH 1330
ESG1	Bill Ford MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3032

BMGT313 Financial Statement Analysis

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restricted to Finance or Accounting majors with 53 credit hours completed.

0101	Brent Solomon MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1335
0201	Brent Solomon MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1335

BMGT321 Managerial Accounting

Prerequisite: BMGT221.

A study of the basic concepts of product costing and cost analysis for management planning and control. Emphasis is placed on the role of the accountant in organizational management, analysis of cost behavior, standard cost budgeting, responsibility accounting and relevant costs for decision-making.

Restricted to BMGT majors with 53 credit hours completed.

0101	Martin Loeb TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1418
0201	Lu Zhang MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 2511

BMGT323 Taxation of Individuals

Prerequisite: BMGT221.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions. Property coverage includes the tax consequences of sales and dispositions of investment and business assets. Both tax planning and compliance issues are covered.

0101	Brian Jefferson TuTh 2:00pm - 3:15pm *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1518
0201	Brian Jefferson TuTh 3:30pm - 4:45pm *Restricted to Accounting majors with 53 credit hours completed.*	Seats (Total: 38) VMH 1518
ESG1	Jeffrey Milton MW 11:00am - 12:15pm *Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3032

BMGT326 Accounting Systems

Prerequisite: BMGT221; and (BMGT201 or BMGT301).

A study of accounting systems and computer and communications technology.

0101	Lei Zhou TuTh 12:30pm - 1:45pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 38) VMH 1314
0201	Lei Zhou TuTh 2:00pm - 3:15pm *Restricted to Accounting majors with 60 credit hours completed.*	Seats (Total: 38) VMH 1314
ESG1	Lei Zhou MW 11:00am - 12:15pm *Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 2062

BMGT332 Quantitative Models for Management Decisions

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department.

The aim of this course is to introduce management science techniques for informed decision-making that can be applied in spreadsheet models to assist in the decision-analysis process. Models include Linear Programming, Transportation and Assignment problems, network flow models, Integer and non-linear programming, Simulation and Decision Trees.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1528
0201	Maria Bardossy TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1415
0301	Kazim Ruhi TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1528

BMGT340 Business Finance

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to BMGT majors with 53 credit hours completed. Interested students who don't meet restrictions should review their eligiblity for BMGT340N. Meets in a blended format. Approximately half of the scheduled face-to-face course meetings will be replaced by asynchronous online activities, including video lectures, quizzes, and graded assignments.

0101	Michael Padhi MW 8:00am - 9:15am	Seats (Total: 70) VMH 1528
0201	Terrence O'Brien MW 3:30pm - 4:45pm	Seats (Total: 70) VMH 1528
0301	Terrence O'Brien MW 5:00pm - 6:15pm	Seats (Total: 70) VMH 1528
0401	Michael Padhi MW 9:30am - 10:45am	Seats (Total: 70) VMH 1528
0501	Michael Padhi MW 11:00am - 12:15pm	Seats (Total: 70) VMH 1528

0601	Michael Padhi MW 12:30pm - 1:45pm	Seats (Total: 70) VMH 1528
0701	Terrence O'Brien TuTh 3:30pm - 4:45pm	Seats (Total: 70) VMH 1330

BMGT340N **Business Finance**

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to Agricultural and Resource Economics majors (0111C) with 53 credit hours completed.

0101	Michael Padhi MW 8:00am - 9:15am	Seats (Total: 1) Location: TBA

BMGT341 **Financial Markets**

Prerequisite: Must have completed or be concurrently enrolled in BMGT340.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Finance majors with 60 credits completed.

0101	Julie Pavlovsky TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1415
0201	Julie Pavlovsky TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1415

BMGT341F **Financial Markets**

Prerequisite: Must have completed or be concurrently enrolled in BMGT340.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Sophomore Wall Street Fellows (FPAF).

FP01	Julie Pavlovsky TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 1415

BMGT343 **Investments**

Prerequisite: BMGT340. Credit only granted for: BMGT343 or ECON435. Additional information: This course cannot be used to fulfill any requirements for majors in Economics.

An introduction to financial investments. Topics include: securities and securities markets; investment risks, returns and constraints; portfolio policies; and institutional investment policies.

Restriction: Restricted to Finance majors with 60 credit hours completed

0101	Thomas Ernst TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1418
0201	Thomas Ernst TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1418
0301	Kenneth Fuller MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1336
0401	Kenneth Fuller MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1336
0501	Kenneth Fuller TuTh 8:00am - 9:15am	Seats (Total: 45) VMH 1415

BMGT345 **Foundations of Financial Management for Non Business Majors**

Prerequisite: BMGT210 or BMGT220. Restriction: Must not have completed BMGT340; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT345 or BMGT340. Additional information: Course does not apply to a Smith School degree. BMGT340 may substitute for BMGT345.

Provides students an overview of financial management. Students will understand how a business allocates financial resources in an uncertain environment to maximize shareholder value. In addition students will learn the following: how to apply accounting principles to corporate finance; how to value assets, projects, companies and investment securities; understand the relationship between risk and return and how it impacts investment and corporate decisions; how to calculate a company's cost of capital, and develop an intuitive comprehension of financial concepts and analysis.

0101	Michael Padhi Class time/details on ELMs	Seats (Total: 180) ONLINE

BMGT347 **Quantitative Financial Analysis**

Prerequisite: BMGT340; must have completed or be concurrently enrolled in BMGT343. Credit only granted for: BMGT347 or BMGT448G. Formerly: BMGT448G.

Introduces students to data science for financial applications using an industry-standard programming language. Students will use tools ranging from regression models to machine learning to investigate questions across a variety of areas within finance including asset management, corporate finance and FinTech. The course will illustrate how big data and data analytics can improve financial decision-making by focusing on problems facing finance professionals.

Restricted to Finance majors with 72 credit hours completed.

0101	Xi He MW 9:30am - 10:45am	Seats (Total: 40) VMH 1314
0201	Xi He MW 11:00am - 12:15pm	Seats (Total: 40) VMH 1314

BMGT350 Marketing Principles and Organization

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT 350N.

0101	Sanghwa Kim M 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE
0201	Sanghwa Kim M 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE
0301	Richard Toohey M 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0401	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 63) VMH 1505 ONLINE

0501	Roxanne Lefkoff W 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE
0601	Roxanne Lefkoff W 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE
0701	Idil Yaveroglu W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 65) VMH 1412 ONLINE
0801	Richard Toohey M 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 65) VMH 1505 ONLINE

BMGT350N **Marketing Principles and Organization**

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to Agricultural and Resource Economics (0111C) and Horticulture (0101B) majors with 53 credit hours completed.

0401	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 2) VMH 1505 ONLINE

BMGT351 **Marketing Research Methods**

Prerequisite: BMGT230; and must have completed or be concurrently enrolled in BMGT350. Credit only granted for: BMGT351 or BMGT452. Formerly: BMGT452.

Focuses on aiding marketing decision-making through exploratory, descriptive and causal research. Develops student skills in designing market research studies, including selection of data collection method, development of data collection instrument, sample design, collection and statistical analysis of data and reporting the results, including data visualization.

Restricted to marketing majors with 53 credits or more.

0101	Bruno Jacobs MW 9:30am - 10:45am	Seats (Total: 38) VMH 1311

0201	Bruno Jacobs MW 11:00am - 12:15pm	Seats (Total: 38) VMH 1311
0301	Bruno Jacobs MW 3:30pm - 4:45pm	Seats (Total: 38) VMH 1311

BMGT354 Consumer Analysis

Prerequisite: BMGT350. Credit only granted for: BMGT354 or BMGT451. Formerly: BMGT451.

Identifying buyer behavior concepts relevant to a specific marketing problem so that appropriate marketing decisions can be made. Conceptual frameworks are drawn from psychology, sociology, economics, and other social sciences to aid in understanding the behavior of ultimate and industrial buyers.

0101	Joseph Reiff TuTh 9:30am - 10:45am *Restricted to marketing majors with 68 credits or more.*	Seats (Total: 35) VMH 1311
0201	Joseph Reiff TuTh 11:00am - 12:15pm *Restricted to marketing majors with 68 credits or more.*	Seats (Total: 35) VMH 1311
0301	Marjorie Bonavia TuTh 2:00pm - 3:15pm *Restricted to marketing majors with 68 credits or more.*	Seats (Total: 35) VMH 1415
ESG1	Marjorie Bonavia TuTh 11:00am - 12:15pm *Retricted to Shady Grove marketing majors.*	Seats (Total: 45) BLD2 3052

BMGT355 Foundations of Marketing for Non Business Majors

Restriction: Must not have completed BMGT350; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT355 or BMGT350. Additional information: Course does not apply to a Smith School degree. BMGT350 may substitute for BMGT355.

Introduces the concepts and principles of marketing. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

0101	Idil Yaveroglu Class time/details on ELMs	Seats (Total: 180) ONLINE

BMGT360 Strategic Management of Human Capital

Provides students with the basic knowledge needed to help organizations attract, select, develop, engage, evaluate, and retain talent. Topics covered may include strategic HRM, the role of globalization, legal issues in HRM, work analysis, HR planning, recruitment, personnel selection, performance management and appraisal, training and development, career development, compensation systems, motivating and rewarding performance, labor relations, and employee health and safety.

Restricted to students with 53 credit hours completed.

0101	Gregory Marr TuTh 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
0201	Gregory Marr, Gregory Olsen TuTh 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
ESG1	Vineet Gambhir TuTh 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3032

BMGT362 Negotiations

Restriction: Must not have completed COMM425. Credit only granted for: BMGT362 or COMM425.

By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, this experiential course is designed to enhance students' negotiating self-confidence and improve students' analytical skills, interpersonal skills, creativity and persuasive abilities.

Restricted to Management majors and Innovation and Entrepreneurship minors with 53 credits.

0101	Gosia Langa Basit MW 3:30pm - 4:45pm	Seats (Total: 35) VMH 1518
0201	Gosia Langa Basit MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 1415
0301	Robert Sheehan TuTh 9:30am - 10:45am	Seats (Total: 35) TWS 0236

BMGT363 Leadership and Teamwork in Organizations

Provides a comprehensive understanding of fundamental leadership concepts, theories, and skills in organizations and applies to assessing and developing effective leadership practices in organizations.

0101	Gerald Suarez MW 11:00am - 12:15pm *Restricted to Management majors with 53+ credits.*	Seats (Total: 45) VMH 1415
0201	Myeong-Gu Seo TuTh 11:00am - 12:15pm *Restricted to Management majors with 53+ credits.*	Seats (Total: 45) TWS 1310
ESG1	Robert Sheehan MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD3 4230

BMGT364 **Managing People and Organizations**

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to BMGT majors with 53 credit hours completed. This course requires the purchase of course materials other than standard textbooks for in class simulations. Students will be required to purchase these materials directly from the simulation publisher(s) at a cost of approximately $20(discounts applied for number of students enrolled in course). More information on purchasing these materials will be available when the course begins.

0101	Gosia Langa Basit MW 9:30am - 10:45am	Seats (Total: 47) VMH 1303
0201	Gosia Langa Basit MW 11:00am - 12:15pm	Seats (Total: 60) VMH 1303
0301	Hui Liao TuTh 12:30pm - 1:45pm	Seats (Total: 60) VMH 1520
0401	Aneesh Rai MW 2:00pm - 3:15pm	Seats (Total: 60) VMH 1303
0501	Aneesh Rai MW 12:30pm - 1:45pm	Seats (Total: 60) VMH 1303

0601	Hui Liao TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1520
0701	Hui Liao TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1520
0801	Jesse Kellner W 7:00pm - 9:40pm	Seats (Total: 60) VMH 1303

BMGT364N **Managing People and Organizations**

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Synchronous online courses activities will take place during 8 of the weeks on Thursdays between 2-3:15pm. Restricted to Agricultural and Resource Economics (0111C) and Dietetics (1307D) majors with 53 credit hours completed. This course requires the purchase of course materials other than standard textbooks for in class simulations. Students will be required to purchase these materials directly from the simulation publisher(s) at a cost of appoximately $20(discounts applied for number of students enrolled in course). More information on purchasing these materials will be available when the course begins.

0101	Gosia Langa Basit MW 9:30am - 10:45am	Seats (Total: 13) VMH 1303

BMGT365 **Entrepreneurial Finance and Private Equity**

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher. Credit only granted for: BMGT365, ENES466, SMLP471 or HLMN471.

Studies venture capital and private equity using a combination of cases, lectures and guest speakers. Addresses how venture capitalists provide capital to start-up firms in growing industries and how private equity markets provide capital to help established medium-sized firms (often family businesses) grow and restructure. Focuses on how financial, legal, and economic issues are dealt with in the financial contracts between venture capitalists and their limited partners and between capitalists (or other private equity investors) and the firms in which they invest.

Course restricted to BMGT majors with 72 credits completed and Innovation and Entrepreneurship (#BU03) minors

0101	Alan Jacobs Th 5:00pm - 7:40pm	Seats (Total: 40) VMH 1330

BMGT366 **Growth Strategies for Emerging Companies**

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher.

Offers practical management tools that are needed to build a new venture into a significant enterprise. The competencies, strategies and structures of successful high performance businesses are studied through cases, videos and guest lecturers. Topics include leadership, internal growth strategies, merger, acquisition and franchising.

Restricted to Innovation and Entrepreneurship Minors and Management Majors.

0101	Steven Freishtat TuTh 11:00am - 12:15pm	Seats (Total: 45) TWS 0236
0201	Jennifer Hsin TuTh 12:30pm - 1:45pm	Seats (Total: 45) ASY 3207

BMGT367 Career Search Strategies in Business

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

Restricted to BMGT students with 45 credit hours completed.

0101	Laura Labovich, Erin Saddler M 5:00pm - 5:50pm	Seats (Total: 55) VMH 1336
0201	Anita Galiano, Erin Saddler Tu 5:00pm - 5:50pm	Seats (Total: 55) VMH 1330
0301	Rahman Anjorin, Erin Saddler W 5:00pm - 5:50pm	Seats (Total: 55) VMH 1336
0401	Christopher Kolling, Erin Saddler Th 5:00pm - 5:50pm	Seats (Total: 55) VMH 1335
0501	Agnieszka Galecka, Erin Saddler M 6:00pm - 6:50pm	Seats (Total: 55) VMH 1336
0601	Adam VanWagner, Erin Saddler Tu 6:00pm - 6:50pm	Seats (Total: 55) VMH 1335

BMGT367F Career Search Strategies in Business

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

Restricted to students in the Smith School's Smith Start Program (FPFF).

FP01	Erin Saddler, Tyrone Clifton M 5:00pm - 5:50pm	Seats (Total: 36) VMH 1314
FP02	Tyrone Clifton, Erin Saddler M 6:00pm - 6:50pm	Seats (Total: 36) VMH 1314
FP03	Christopher Danna, Erin Saddler Tu 5:00pm - 5:50pm	Seats (Total: 36) VMH 1418
FP04	Rebecca Salazar, Erin Saddler Tu 6:00pm - 6:50pm	Seats (Total: 36) VMH 1418
FP05	Erin Saddler, Dina Broydo W 5:00pm - 5:50pm	Seats (Total: 36) VMH 1314
FP06	Susan Powell, Erin Saddler W 5:00pm - 5:50pm	Seats (Total: 36) VMH 1311
FP07	Susan Powell, Erin Saddler W 6:00pm - 6:50pm	Seats (Total: 36) VMH 1311
FP08	Erin Saddler, Dina Broydo Th 5:00pm - 5:50pm	Seats (Total: 36) VMH 1311
FP09	Zachary Lyons, Erin Saddler Th 6:00pm - 6:50pm	Seats (Total: 36) VMH 1311
FP10	Kristen Hyland, Erin Saddler Th 5:00pm - 5:50pm	Seats (Total: 36) VMH 1418
FP11	Erin Saddler, Dina Broydo W 6:00pm - 6:50pm	Seats (Total: 36) VMH 1314

FP12	Michael Gribbin, Erin Saddler M 5:00pm - 5:50pm	Seats (Total: 36) VMH 1303

BMGT369D **Experiential Learning in Business Innovation and Entrepreneurship; Inclusive Entrepreneurship**

Selected experiential learning opportunities in business innovation and entrepreneurship

Inclusive Entrepreneurship is the Dingman Center's class which empowers and connects diverse students interested in careers as founders, investors or early startup employees with a passion for advancing equity and inclusion within entrepreneurship. This one- credit course is open to those working on business and social venture ideas. The small cohorts learn about entrepreneurship, grow their own ventures, and support each other s entrepreneurial journeys through a blend of skill-building workshops and sessions with guest speakers. Topics include imposter syndrome and how to move beyond it, the how-to s of networking, finding self-permision and empowernment as a founder/student/human, facilitating inclusive customer discovery and inclusive product development, startup pitching and body language, funding and how to get it, and more. Students from diverse gender, racial, socio-economic and neurodivergent backgrounds are encouraged to apply. Students who are interested in learning more about Inclusive Entrepreneurship should contact the instructor at tsegaht@umd.edu.

0101	Tsega Tadesse Tu 2:00pm - 3:15pm	Seats (Total: 20) VMH 3330H

BMGT370 **Introduction to Transportation**

An overview of the transportation field with an emphasis on freight movements from the perspective of both providers of capacity and users of freight services. Examines the characteristics of the freight modes and the role of each mode as a major component of logistics and supply chain management. Explores the economics, energy use, and finances of each mode as well as the impact of government policies on each mode's future. Discussion of infrastructure and capacity needs of the transportation system and its ability to support the economy.

Restricted to BMGT students with 53 credit hours completed.

0101	Adams Steven TuTh 3:30pm - 4:45pm	Seats (Total: 30) VMH 1314
0201	Adams Steven TuTh 5:00pm - 6:15pm	Seats (Total: 30) VMH 1314

BMGT372 **Introduction to Logistics and Supply Chain Management**

Credit only granted for: BMGT375 or BMGT372.

Supply chain management involves the coordination of suppliers, manufacturers, distributors, and retailers to ensure that products and services are available to the final consumer in a timely and cost-effective fashion. Logistics management is the subset of supply chain management dealing with the physical flows of product and includes such activities as transportation management, warehousing, materials handling, inventory management, and order fulfillment. Attention is paid to the logistics cost trade-offs within the firm and between members of the supply chain.

0101	Humberto Coronado TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 35) VMH 2511
0201	Humberto Coronado TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 35) VMH 2511
0301	Humberto Coronado MW 2:00pm - 3:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1314
0401	Humberto Coronado MW 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 35) VMH 1314
ESG1	Richard Hutchins MW 9:30am - 10:45am *Restricted to Junior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 40) BLD3 2230

BMGT375 **Supply Chain Management for Non Business Majors**

Restriction: Must not have completed BMGT372; and must not be a major in the Robert H. Smith School of Business. Credit only granted for: BMGT375 or BMGT372. Additional information: Course does not apply to a Smith School degree. Course may be substituted by BMGT372 for General Business minor students only.

Examines management decision-making in the design, implementation and coordination of a firm's supply chain activities. Topics include transportation management, warehousing, materials handling, inventory management, and order fulfillment.

0101	Leland Gardner Class time/details on ELMs	Seats (Total: 180) ONLINE

BMGT380 **Business Law I**

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.

0101	Justin Reyna MW 9:30am - 10:45am	Seats (Total: 55) VMH 1335
0201	Justin Reyna MW 11:00am - 12:15pm	Seats (Total: 55) VMH 1335
0301	Justin Reyna MW 12:30pm - 1:45pm	Seats (Total: 55) VMH 1335
0401	Stacy Hickox MW 3:30pm - 4:45pm	Seats (Total: 60) VMH 1303
0501	Gideon Mark TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1303
0601	Gideon Mark TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1303
0701	Gideon Mark TuTh 2:00pm - 3:15pm	Seats (Total: 60) VMH 1303

BMGT380N **Business Law I**

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to Agricultural and Resource Economics (0111C) majors with 53 credit hours completed.

0201	Justin Reyna MW 11:00am - 12:15pm	Seats (Total: 0) VMH 1335

BMGT385 **Operations Management**

Credit only granted for: BMGT385 or ENME426.

Studies the design, management and improvement of a firm's processes and systems for creation and delivery of products and services. Includes strategic and operational views of supply chain, product development, and capacity analysis, highlighting the competitive advantages that operations management can provide the firm.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1528
0201	Kazim Ruhi TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1528

BMGT390H **Designing Innovative Systems**

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: ENES390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

Also offered as: ENES390H

0101	David Ashley M 5:00pm - 7:40pm	Seats (Total: 45) TWS 1310

BMGT392 **Introduction to International Business Management**

Prerequisite: ECON200.

A study of the domestic and foreign environmental factors affecting the international operations of U.S. business firms. The course also covers the administrative aspects of international marketing, finance and management.

0101	Huu Nguyen TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1311
ESG1	Richard Hutchins MW 12:30pm - 1:45pm *Restricted to BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 50) BLD3 2230

BMGT395 **Principles of Management for Non Business Majors**

Restriction: Must not have completed BMGT364; and must not be a major in the Robert H. Smith School of Business. Credit only granted for: BMGT395 or BMGT364. Additional information: Course does not apply to a Smith School degree. Course may be substituted by BMGT364 for General Business minor students only.

Introduces concepts related to organization behavior. Topics include leadership, team decision making and management, conflict resolution and negotiations, organizational culture, and organization change. Students will learn how to apply those concepts and theories to understanding and critically analyzing various individual, interpersonal, group, and organizational management processes.

0101	Trevor Foulk	Seats (Total: 180)
	Class time/details on ELMs	ONLINE

BMGT397 **Mentoring Multidisciplinary Teams**

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

Restricted to students in the QUEST program. Also listed as ENES397. Credit granted for BMGT397 or ENES397.

0101	Emily Marks	Seats (Total: 9)
	Tu 5:00pm - 7:40pm	ESJ 2101

BMGT398 **Individual Study in Business and Management**

(Perm req)

Contact department for information to register for this course.

BMGT398A **Individual Study in Business and Management; Internship**

(Perm req)

Restricted to Smith School of Business students. Interested students should contact Erin Fields Saddler (BMGT398A@rhsmith.umd.edu) for details and permission.

0101	Erin Saddler	Seats (Total: 60)
	Contact instructor or department for details.	
ESG1	Erin Saddler	Seats (Total: 15)
	Contact instructor or department for details.	

BMGT398J **Individual Study in Business and Management; Preparing for a Global Internship**

(Perm req)

Contact department for information to register for this course.

BMGT398W **Individual Study in Business and Management; Junior Wall Street Fellows**

Restricted to Wall Street Fellows (FPWS).

0101	Julie Pavlovsky Th 2:00pm - 3:15pm	Seats (Total: 24) VMH 3330H	

BMGT402 **Database Systems**

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to Information Systems majors with 60+ credit hours, and BMGT and Business Analytics minors with 72+ credit hours.

0101	Yizhi Liu TuTh 2:00pm - 3:15pm Th 5:00pm - 5:50pm	Seats (Total: 30) VMH 2203 VMH 2203	 Lab
0201	Yunfei Wang MW 11:00am - 12:15pm Tu 5:00pm - 5:50pm	Seats (Total: 30) VMH 1518 VMH 2203	 Lab
0301	Woei-jyh Lee MW 9:30am - 10:45am Tu 6:00pm - 6:50pm	Seats (Total: 30) VMH 3505 VMH 2203	 Lab

BMGT402F **Database Systems**

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to students in the Technology and Business Transformation Fellows (FPTT).

FP01	Louiqa Raschid TuTh 3:30pm - 4:45pm Th 5:00pm - 5:50pm Th 6:00pm - 6:50pm	Seats (Total: 24) VMH 2203 VMH 3505 VMH 3505	 Lab Discussion

BMGT403 **Systems Analysis and Design**

Prerequisite: BMGT301; or students who have taken courses with comparable content may contact the department. Recommended: BMGT302.

Techniques and tools applicable to the analysis and design of computer-based information systems. System life cycle, requirements analysis, logical design of databases and performance evaluation. Emphasis on case studies. Project required that involves the design, analysis and implementation of an information system.

Restricted to IS majors with 72 credit hours completed.

0101	Hassan Ibrahim MW 12:30pm - 1:45pm	Seats (Total: 37) VMH 1311
0201	Hassan Ibrahim MW 2:00pm - 3:15pm	Seats (Total: 37) VMH 1311

BMGT404 **Essential Data Skills for Business Analytics**

Prerequisite: BMGT302. Credit only granted for: BMGT404 or CMSC320. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major.

Building on prior programming knowledge, this course introduces principles of data science to collect, analyze, and visualize business data. Students will explore application of business analytics in areas such as finance, accounting, marketing, and operations. This course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to Information Systems majors with 60+ credit hours and BMGT & Business Anlaytics minors with 72+ credit hours.

0101	John Bono MW 3:30pm - 4:45pm	Seats (Total: 35) VMH 2203
0201	John Bono MW 5:00pm - 6:15pm	Seats (Total: 35) VMH 2203

BMGT407 **Information Systems Projects**

(Perm req)

Prerequisite: BMGT402 and BMGT403. Restriction: Senior standing.

Senior capstone course for the information systems major. Collected knowledge from the IS courses and application to significant problems of size and complexity. State-of-the-art research ideas and current business and industrial practices in information systems.

Permission to register for the course is granted to Information Systems majors with 86 credit hours completed who will have completed BMGT407's prerequisites by the start of the Spring semester.

0101	Hassan Ibrahim Th 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 42) VMH 2203 ONLINE
0201	John Bono W 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 40) VMH 2203 ONLINE
0301	John Bono M 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 40) VMH 2203 ONLINE
0401	Hassan Ibrahim Tu 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 42) VMH 2203 ONLINE

BMGT408V **Emerging Topics in Information Systems; Data Visualization and Web Analytics**

Selected advanced topics covering emerging developments in the field of decision and information technologies.

Restricted to Information Systems majors with 60+ credits and BMGT and Business Analytics minors with 72+ credit hours. Prerequisite: BMGT301. BMGT302 recommended

0101	Lauren Rhue TuTh 11:00am - 12:15pm	Seats (Total: 35) TWS 1107
0201	Lauren Rhue TuTh 12:30pm - 1:45pm	Seats (Total: 35) TWS 0236

BMGT411 **Ethics and Professionalism in Accounting**

Prerequisite: BMGT311. Restriction: Must be in Accounting program.

Analysis and discussion of issues relating to ethics and professionalism in accounting.

0101	Brian Jefferson TuTh 9:30am - 10:45am *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 35) VMH 1518
0201	Brian Jefferson TuTh 11:00am - 12:15pm *Restricted to Accounting majors with 86 credit hours completed.*	Seats (Total: 35) VMH 1518

ESG1	James Lager MW 9:30am - 10:45am	Seats (Total: 40) BLD2 2032
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT417 **Taxation of Corporations, Partnerships and Estates**

Prerequisite: BMGT221.

Federal taxation of corporations using the life-cycle approach-formation, operation, assessment, merger, reorganization and liquidation. Overviews of pass-through entities - partnerships and s-corporations -using the life-cycle approach, and the tax consequences of wealth transfers by individuals - gift and estate taxation. Both tax planning and compliance issues are addressed.

0101	Jeffrey Milton TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1520
	Restricted to Accounting majors with 84 credit hours completed.	
ESG1	Jeffrey Milton MW 12:30pm - 1:45pm	Seats (Total: 45) BLD2 3032
	Restricted to Senior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT422 **Auditing Theory and Practice**

Prerequisite: BMGT310; and must have completed or be concurrently enrolled in BMGT311.

A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests and report forms and opinions.

Restricted to Accounting majors.

0101	Patrick McNamee TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1518
0201	Patrick McNamee MW 9:30am - 10:45am	Seats (Total: 40) VMH 1330

BMGT423 **Fraud Examination**

Prerequisite: BMGT220 or BMGT210.

The focus of this course in fraud accounting is on fraud prevention, detection, and investigation as relevant to accountants and fraud examiners. Most organizations are affected to some degree by the occurrence of fraud, whether or not reported. It is estimated that organizations, WORLDWIDE, lost roughly 5% of their annual revenues to fraud. Despite advances in technology, the problem of fraud continues to escalate; and in particular, cybercrime is growing at an alarming rate. The course will serve as an introduction to all of the topics covered in the Certified Fraud Examiner (CFE) examination. While not purporting to be an exam preparation course, the diligent student could be CFE exam ready soon after taking this course. This course provides an introduction to the profession of fraud examination for accounting majors or for individuals seeking to satisfy the educational requirements for the CPA examination.

Restricted to BMGT majors.

0101	Samuel Handwerger MW 12:30pm - 1:45pm	Seats (Total: 35) VMH 1518

BMGT424 Advanced Accounting

Prerequisite: BMGT311.

Advanced accounting theory applied to specialized topics and current problems. Emphasis on consolidated statements and partnership accounting.

Restricted to Accounting majors.

0101	Bill Ford MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1307

BMGT430 Data Modeling in Business

Prerequisite: BMGT231 or BMGT230; or permission of BMGT-Robert H. Smith School of Business.

Explores the role of statistical models in business analytics to drive managerial decision-making and improve performance through the use of relevant data-motivated examples. Topics include regression models (both simple and multiple regression, as well as logistic regression for binary data), model validation, variable transformation, variable selection, discriminant analysis, and forecasting. These topics are modeled using state-of-the-art data analytics software.

Restricted to BMGT majors and Business Analytics minors.

0101	Radu Lazar TuTh 8:00am - 9:15am	Seats (Total: 45) VMH 1505
0201	Radu Lazar TuTh 5:00pm - 6:15pm	Seats (Total: 45) VMH 1520

BMGT431 Data Analytics

Prerequisite: BMGT430.

An introduction to the tools and techniques that are central to the analysis of abundant data that is being collected in many forms including web traffic, social network data, and reviews and comments on websites.

Restricted to Business Analytics minors and OM & BA majors.

0101	Margret Bjarnadottir MW 9:30am - 10:45am	Seats (Total: 45) VMH 1415
0201	Margret Bjarnadottir MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1418
0301	Radu Lazar TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1418

BMGT434 **Analytics Consulting: Cases and Projects**

Prerequisite: BMGT332 and BMGT385.

This course assumes that students have already been introduced to the concepts and techniques of operations research/business analytics (OR/BA). Published papers, short cases, and projects in OR/BA will be analyzed and discussed in a thoughtful way, taking into account the soft (people-related) issues and the hard (mathematical/optimization) issues.

Restricted to Business majors, QUEST Program students, and Business Analytic minors with 72 credit hours completed.

0101	Bruce Golden MW 2:00pm - 3:15pm	Seats (Total: 30) VMH 1518
0201	Maria Bardossy TuTh 12:30pm - 1:45pm	Seats (Total: 30) VMH 1335

BMGT435 **Business Process Simulation**

Prerequisite: BMGT332 and BMGT385.

Covers the methods for computer simulation modeling and analysis of complex systems. Students are assumed to have been introduced to the basic techniques and applications in the field of operations management and business analytics. Course emphasis is on modeling of real-world systems (for example, inventory or queueing systems), implementing simulations in special purpose software, and analyzing simulation results.

Restricted to BMGT majors and Business Analytics minors with 60 credit hours completed.

0101	Sujin Kim TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1418

BMGT438A **Special Topics in Operations Management; Applied Quantitative Analysis**

Selected advanced topics in operations management.

Restricted to QUEST students. Cross-listed with ENES498A. Credit granted for BMGT438A or ENES489A.

0101	Maria Bardossy MW 2:00pm - 3:15pm	Seats (Total: 55) TWS 1310

BMGT438N **Special Topics in Operations Management; Product Management**

Selected advanced topics in operations management.

Restricted to students in the Quest program. In this course, students will gain a comprehensive understanding of Product Management by analyzing technical products from various industries. The curriculum includes guest lectures featuring alumni who currently hold roles as product managers in major technology companies. Additionally, students will have the unique opportunity to conceptualizea software-based product aimed at addressing an unmet market need. This isa hands-on, practical class where active participation is expected. Noprior knowledge of software development is required; however, a genuine interest in understanding the why and how behind the software weinteract with daily is essential.

0101	Jessica Alves De Sa Th 5:00pm - 7:40pm	Seats (Total: 25) VMH 1415

BMGT440 **Advanced Financial Management**

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to BMGT majors with 68 credit hours completed.

0101	Seokwoo Lee MW 9:30am - 10:45am	Seats (Total: 50) VMH 1412
0201	David Kass TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1335
0301	David Kass TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1335

0401	David Kass TuTh 3:30pm - 4:45pm	Seats (Total: 50) VMH 1335

BMGT441 **Fixed Income**

Prerequisite: BMGT340.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

Restricted to Finance majors with 72 credit hours completed.

0101	Aysun Alp Paukowits MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307
0201	Aysun Alp Paukowits MW 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307
0301	Aysun Alp Paukowits MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1528

BMGT443 **Applied Equity Analysis and Portfolio Management**

Prerequisite: BMGT343.

Study and application of the concepts, methods, models, and empirical findings to the analysis, valuation and selection of securities, especially common stock.

Restricted to BMGT majors with 84 credit hours completed.

0101	Joseph Perfetti MW 11:00am - 12:15pm	Seats (Total: 47) VMH 3505
0201	Joseph Perfetti MW 12:30pm - 1:45pm	Seats (Total: 47) VMH 3505
0301	Joseph Perfetti MW 2:00pm - 3:15pm	Seats (Total: 47) VMH 3505
0401	Joseph Perfetti MW 3:30pm - 4:45pm	Seats (Total: 47) VMH 3505

BMGT444 **Futures and Options Contracts**

Prerequisite: BMGT343. Credit only granted for: BMGT444 or MATH424.

The institutional features and economic rationale underlying markets in futures and options. Hedging, speculation, structure of futures prices, interest rate futures, efficiency in futures markets and stock and commodity options.

Restricted to Finance (0503F) majors with 84 credit hours completed.

0101	Michael Cichello TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307
0201	Michael Cichello TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307
0301	Michael Cichello TuTh 5:00pm - 6:15pm	Seats (Total: 45) VMH 1307

BMGT445 Banking and Financial Institutions

Prerequisite: BMGT340. Recommended: ECON330 or BMGT341.

Analysis and discussion of cases and readings in commercial bank management. The loan function is emphasized; also the management of liquidity reserves, investments for income and source of funds. Bank objectives, functions, policies, organization, structure, services and regulation are considered.

Restricted to Finance (0503F) majors with 84 credit hours completed.

0101	Agustin Hurtado TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1307
0201	Agustin Hurtado TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1307
0301	Ping McLemore M 5:00pm - 7:40pm	Seats (Total: 45) VMH 1418

BMGT446 International Finance

Prerequisite: BMGT340.

Financial management from the perspective of the multinational corporation. Topics covered include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade and designing a global financing strategy. Emphasis of the course is on how to manage exchange and political risks while maximizing benefits from global opportunity sets faced by the firm.

0101	Apoorva Javadekar TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 2511
	Restricted to Finance and International Business majors with 72 credit hours completed.	
0201	Apoorva Javadekar TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1311
	Restricted to Finance and International Business majors with 72 credit hours completed.	
0301	Apoorva Javadekar TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1311
	Restricted to Finance and International Business majors with 72 credit hours completed.	

BMGT449F **Investment Fund Management: Lemma Senbet Fund**

The Lemma Senbet Fund is a year-long, advanced finance course available to undergraduate finance majors in their senior year. Ten to twelve students will be selected in the spring of their junior year to participate on the fund, two as portfolio managers and eight to ten as equity analysts. The course provides students with the opportunity to apply what they have learned in finance classes to actual investment decisions, through researching real companies and managing a portfolio of real money.

Restriction: Restricted to students in the Smith School's Lemma Senbet Fund Fellows program

FP01	Sarah Kroncke TuTh 2:00pm - 3:50pm	Seats (Total: 12) VMH 2509

BMGT450 **Integrated Marketing Communications**

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

In-depth study of coordinated marketing activities including advertising, sales promotion, Internet marketing, direct marketing and personal selling. Emphasizes strategic planning to effectively use these promotional tools to communicate with customers and meet marketing goals. Blends theory and current practice to provide managerial orientation.

0101	Idil Yaveroglu TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1303
	Restricted to BMGT majors with 60 credit hours completed.	
0201	Christine Schaaf TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1307
	Restricted to BMGT majors with 60 credit hours completed.	

BMGT454 **Global Marketing**

Prerequisite: BMGT350.

Marketing functions from the global executive's viewpoint, including coverage of global marketing policies relating to product adaptation, data collection and analysis, channels of distribution, pricing, communications and cost analysis. Consideration is given to the cultural, legal, financial and organizational aspects of global marketing.

Restricted to BMGT majors with 72 credit hours completed.

0101	Amna Kirmani MW 9:30am - 10:45am	Seats (Total: 45) VMH 1307
0201	Amna Kirmani MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1307

BMGT455 Sales Management

Prerequisite: BMGT350.

The roles of the sales executive as a planner, manager of resources and marketing functions and recruiter, trainer, motivator and leader of field sales personnel. Techniques and sequence of problem analysis for selling and sales management decisions and to the practical framework in which these decisions take place. Teaching vehicles feature strong classroom interactions, cases, journal articles, research findings, guest sales managers, debates, and modern company practices.

ESG1	Kathleen Kelly TuTh 11:00am - 12:15pm	Seats (Total: 40) BLD2 3022
	Restricted to Senior BMGT-Shady Grove cohort students. Other students may request enrollment on a space available basis. UMCP undergraduate students are not eligible to enroll at Shady Grove.	

BMGT456 Customer-Centric Innovation

Prerequisite: BMGT350. Credit only granted for: BMGT352, BMGT382 or BMGT456. Formerly: BMGT352.

Addresses the management of new products and services with a focus on the innovation process, specifically the development and launching of new products or services: Opportunity Identification, Concept Generation, Design, Testing and Launch.

Contact department for information to register for this course.

BMGT457 Marketing Policies and Strategies

Prerequisite: BMGT350.

This capstone course ties together various marketing concepts using the fundamentals of strategic market planning as the framework. Application of these principles is accomplished by analyzing and discussing cases and by playing a marketing strategy computer simulation game. Analysis of current business articles to understand the link between theory and real-world problem solving.

0101	Roland Rust MW 9:30am - 10:45am *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 1336
0201	Roland Rust MW 11:00am - 12:15pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 1336
0301	Mary Beth Furst TuTh 3:30pm - 4:45pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 3505
0401	Mary Beth Furst TuTh 12:30pm - 1:45pm *Restricted to Marketing majors with 100 credit hours completed.*	Seats (Total: 45) VMH 3505
ESG1	Elie Ashery MW 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 35) BLD2 3012

BMGT458T **Special Topics in Marketing; Developing and Managing Customer Relationships**

Selected advanced topics in marketing.

Prerequisites: BMGT350. Open to any business major. Marketing promotion tactics include direct interaction with potential customers. In this course, you will apply your business acumen to understand customer needs through a consultative communication approach and develop customized solutions. This highly interactive course focuses on developing your communication, time-management, and problem-solving skills to prepare you for careers in consulting, management, personal sales, and business development.

0101	Mary Beth Furst MW 12:30pm - 1:45pm	Seats (Total: 35) TWS 0214

BMGT458U **Special Topics in Marketing; Digital Marketing Analytics**

Selected advanced topics in marketing.

Prerequisites: BMGT230 and BMGT350. Restricted to any business major. To participate in the course effectively, students must have a personal laptop computer for continuous access during class sessions Students are introduced to a quantitative approach in data-driven marketing within digital environments. Topics include data collection and measurement, web analytics, analysis of customer online behavior, social media analytics, search engines, recommendation systems, and hands-on experience with popular industry tools. Additionally, students develop foundational programming skills.

0101	Michael Trusov TuTh 3:30pm - 4:45pm	Seats (Total: 40) ARC 1101

BMGT461 **Entrepreneurship**

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to BMGT majors with 72 credit hours completed. Non-majors should register for BMGT461N. BMGT minors should register for BMGT461M.

0101	Sheetal Singh W 7:00pm - 9:40pm	Seats (Total: 20) VMH 1307
0201	Le-Marie Thompson TuTh 12:30pm - 1:45pm	Seats (Total: 40) ESJ 1309

BMGT461M **Entrepreneurship**

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to Innovation & Entrepreneurship Minors (#BU03) and also BMGT majors with 72 credit hours completed.

0101	Le-Marie Thompson TuTh 2:00pm - 3:15pm	Seats (Total: 60) SHM 2102

BMGT461N **Entrepreneurship**

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Open to all non-BMGT majors with 72 credit hours completed. BMGT majors should register for BMGT 461. Not open to Innovation and Entrepreneurship minors.

0101	Sheetal Singh W 7:00pm - 9:40pm	Seats (Total: 20) VMH 1307

BMGT463 **Cross-cultural Challenges in Business**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines in depth the nature of international cultural value-differences and their behavioral-related effects in the workplace. Topics include decision-making and leadership styles and reactions to various work assignments and reward structures.

Restricted to International Business, Management, & Entrepreneurship majors with 72 credit hours completed.

0101	Debra Shapiro MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1505
0201	Debra Shapiro MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 1505
ESG1	Jeanette Snider MW 11:00am - 12:15pm	Seats (Total: 40) BLD2 2032
	Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT466 **Global Business Strategy**

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Focuses on the strategic challenges that directly result from and are associated with the globalization of industries and companies. Topics include drivers of industry globalization, difference between global and multi-domestic industry, global expansion strategies, sources of competitive advantage in a global context, and coordination of a company across a global network.

Restricted to International Business, Management, and Entrepreneurship & Entrepreneurship majors (0503I, 0503G, 0503E) with 72 credit hours completed.

0101	Roy Thomason MW 12:30pm - 1:45pm	Seats (Total: 55) HJP 2242

BMGT467 **Strategic Innovation and Entrepreneurship**

Credit only granted for: BMGT467, ENES463 or HLMN472.

Provides an understanding of how innovation affects the competitive dynamics of markets, how firms can strategically manage innovation, and how firms can create and implement strategies to maximize their likelihood of success.

Meets in-person every other week.

0101	Clarence Wesley TuTh 12:30pm - 1:45pm	Seats (Total: 40) SYM 0200
ESG1	Clarence Wesley MW 9:30am - 10:45am	Seats (Total: 45) BLD2 2062
	Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT468B **Special Topics in Management and Organization; Integrative Management Capstone**

Selected advanced topics in management and organization.

Restricted to Management majors. The Business Problem-Solving Practicum offers students the opportunity to learn problem-solving processes alongside practical work with a real-world client and project. Throughout the course, students are expected to reflect upon their experience as a way of synthesizing the lessons. Students will examine problem-solving processes, tools, and theories and apply them to a client project. The course culminates not in the deliverable to the client but the student's reflections and synthesis of learning. The course offers the opportunity for students to think critically about problem-solving and have a defining learning experience to reflect upon in their future careers.

0101	Nima Farshchi TuTh 11:00am - 12:15pm	Seats (Total: 35) TWS 1106

BMGT468G **Special Topics in Management and Organization; The Value Creation Challenge**

Selected advanced topics in management and organization.

Restricted to BMGT majors with 30 credit hours completed.

0101	Oliver Schlake M 5:00pm - 7:40pm	Seats (Total: 15) ESJ 2101

BMGT468T **Special Topics in Management and Organization; Creativity for Business Leaders and Entrepreneurs Outdoor Edition**

Selected advanced topics in management and organization.

Restricted to students with 45 credit hours completed. Course requires participation in activities outside the scheduled meeting time, including site visits to Under Armour and in the outdoors.

0101	Oliver Schlake W 5:00pm - 6:15pm Contact instructor or department for details.	Seats (Total: 35) VMH 1303

BMGT468W **Special Topics in Management and Organization; Social Innovation Practicum: Consulting and Venture Creation**

Selected advanced topics in management and organization.

Restricted to students with 30 or more credits.

0101	David Kirsch Tu 6:30pm - 9:10pm	Seats (Total: 35) VMH 1307

BMGT468X **Special Topics in Management and Organization; The Value Creation Challenge**

Selected advanced topics in management and organization.

Restricted to non-BMGT majors with 30 credit hours completed.

0101	Oliver Schlake M 5:00pm - 7:40pm	Seats (Total: 15) ESJ 2101

BMGT476 **Technology Applications in Supply Chain Management**

Prerequisite: BMGT372.

An understanding of the role of technology in managing the supply chain. Provides students with hands-on experience in advanced software systems that build on top of enterprise resource planning systems. Major emphasis is placed on demonstrating that these systems result in supply chain cost reductions and service improvements.

Restricted to Supply Chain Management and Information Systems majors.

0101	Hongyi Zhang MW 11:00am - 12:15pm	Seats (Total: 24) VMH 3522
0201	Hongyi Zhang MW 2:00pm - 3:15pm	Seats (Total: 24) VMH 3522

BMGT477 **International Supply Chain Management**

The study of the importance of the supply chain management within a global context. Topics covered include: the structure, service, pricing and competitive relationships among international carriers and transport intermediaries as well as documentation, location decisions, international sourcing/distribution and management of inventory throughout the international supply chain.

0101	Sining Song TuTh 3:30pm - 4:45pm *Restricted to Supply Chain Management majors and International Business majors.*	Seats (Total: 35) VMH 1528
0201	Sining Song TuTh 5:00pm - 6:15pm *Restricted to Supply Chain Management majors and International Business majors.*	Seats (Total: 35) VMH 1528

BMGT478I **Special Topics in Supply Chain Management; Intermodal Transportation**

Selected advanced topics in supply chain management.

Restricted students in Supply Chain Management majors. Prerequiste: Must have completed or be concurrently enrolled in BMGT370.

0101	Thomas Corsi Tu 6:30pm - 9:10pm	Seats (Total: 34) VMH 1518

BMGT483 **Sports Management Program Capstone**

(Perm req)

Prerequisite: BMGT383.

Through interdisciplinary collaboration, students will work in teams to apply their knowledge and skills in sports management to a real-world case. Student teams will be charged to develop innovative and creative solutions to sports management challenges while considering the ethical implications of their proposals.

For students in the Sports Management Program.

0101	Sue Sherburne Th 3:30pm - 6:10pm	Seats (Total: 30) ESJ B0320

BMGT484 **Digital Marketing**

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services through digital means, including the web, social media, and mobile apps. Both the development and analysis of digital media for marketing will be discussed.

0101	Jeffrey Lawrence TuTh 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 3505

0201	Jeffrey Lawrence TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 3505
0301	Yi Chen TuTh 2:00pm - 3:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 3505
ESG1	Yi Chen TuTh 9:30am - 10:45am *Restricted to Senior BMGT-Shady Grove cohort students. Other students may request enrollment on a space available basis. UMCP undergraduate students are not eligible to enroll at Shady Grove.*	Seats (Total: 40) BLD4 2335

BMGT485 **Project Management**

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Modern project management techniques that are used by modern practicing professionals will be covered. Particular attention is given to the management of technology based systems and projects in a business enterprise. The topics covered include: defining project scope, alignment of projects with enterprise strategy, managing project cost, time and risks using tools such as CPM/PERT, and measuring project performance.

Restricted to Information Systems majors with 60 credit hours completed and other BMGT majors and QUEST students with 72 credit hours completed.

0101	Joseph Drasin TuTh 8:00am - 9:15am	Seats (Total: 31) VMH 1418
0201	Stefanos Ghebrehawariat TuTh 5:00pm - 6:15pm	Seats (Total: 31) VMH 1518

BMGT490H **QUEST Capstone Professional Practicum**

Prerequisite: ENES390 or BMGT390. Cross-listed with: ENES490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to QUEST program students. Cross-listed with ENES490H. Credit granted for ENES490H or BMGT490H.

0101	Maria Bardossy, David Ashley W 5:00pm - 7:40pm	Seats (Total: 46) TWS 1310

BMGT495 Strategic Management

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

0101	Protiti Dastidar MW 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) ARC 1101
0201	Protiti Dastidar MW 11:00am - 12:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) ARC 1101
0301	Paulo Prochno MW 2:00pm - 3:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) SQH 1117
0401	Vineet Gambhir MW 3:30pm - 4:45pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 1415
0501	Vineet Gambhir MW 5:00pm - 6:15pm *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 45) VMH 1412
0601	Roy Thomason TuTh 9:30am - 10:45am *Restricted to BMGT majors with 60 credit hours completed.*	Seats (Total: 40) VMH 1314

0701	Roy Thomason TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1314
	Restricted to BMGT majors with 60 credit hours completed.	
0801	Gregory Marr TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1330
	Restricted to BMGT majors with 60 credit hours completed.	
0901	Roy Thomason TuTh 2:00pm - 3:15pm	Seats (Total: 45) TYD 1114
	Restricted to BMGT majors with 60 credit hours completed.	
1001	Clarence Wesley TuTh 3:30pm - 4:45pm	Seats (Total: 45) TYD 0101
	Restricted to BMGT majors with 60 credit hours completed.	
ESG1	Robert Sheehan MW 11:00am - 12:15pm	Seats (Total: 45) BLD3 4230
	Restricted to Junior BMGT-Shady Grove students majoring in Management or Marketing. Other students may request enrollment on a space available basis. UMCP undergradaute BMGT students are not eligible to enroll at Shady Grove.	
ESG2	Robert Sheehan MW 12:30pm - 1:45pm	Seats (Total: 45) BLD3 4230
	Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT499J **Advanced Business Topics; Blockchain and Cryptocurrency**

Course will delve deeply into a specific business topic. Based on experience and knowledge from undergraduate core business classes, students will examine a particular subject from various angles.

Prerequisite: BMGT301. Restricted to BMGT majors. Many people are excited but skeptical about the disruptive potential of blockchain and cryptocurrency. This course is designed to help students thoroughly understand cryptocurrencies such as Bitcoin and their underlying technologies. We introduce you to the fundamentals of blockchain, including its applications and implications. This course is not designed to provide financial advice or an in-depth guide into programming blockchain technology.

0101	Tejwansh Anand Tu 5:00pm - 5:50pm	Seats (Total: 22) ONLINE

BMGT499K **Advanced Business Topics; Blockchain and Cryptocurrency**

Course will delve deeply into a specific business topic. Based on experience and knowledge from undergraduate core business classes, students will examine a particular subject from various angles.

Prerequisite: BMGT301. Restricted to Technology and Business Transformation Fellows (FPTT) Many people are excited but skeptical about the disruptive potential of blockchain and cryptocurrency. This course is designed to help students thoroughly understand cryptocurrencies such as Bitcoin and their underlying technologies. We introduce you to the fundamentals of blockchain, including its applications and implications. This course is not designed to provide financial advice or an in-depth guide into programming blockchain technology.

0101	Tejwansh Anand	Seats (Total: 13)
	Tu 5:00pm - 5:50pm	ONLINE

BMGT604 **Managerial Economics and Public Policy**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI681 or BMGT604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

0501	Jon Crocker	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 12:00pm - 1:50pm	VMH 1336

BMGT614 **Strategic Management**

(Perm req)

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI690 or BMGT614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

0501	Paulo Prochno	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1336

BMGT758A **Special Topics in Business and Management; AI and Business Strategy**

Selected advanced topics in the various fields of graduate study in business.

Cross-listed with BDBA868A Credit only granted for BMGT758a or BDBA868A

0501	Balaji Padmanabhan	Seats (Total: 22)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 10:00am - 11:50am	VMH 1336

BMGT758B **Special Topics in Business and Management; Brand Management**

Selected advanced topics in the various fields of graduate study in business.

0501	Mary Beth Furst	Seats (Total: 15)
	Meets March 25, 2024 - May 10, 2024	
	MW 2:00pm - 3:50pm	VMH 1511

BMGT758C **Special Topics in Business and Management; Consumer Behavior**

Selected advanced topics in the various fields of graduate study in business.

0501	Rosellina Ferraro	Seats (Total: 15)
	Meets January 24, 2024 - March 12, 2024	
	MW 4:00pm - 5:50pm	VMH 1520

BMGT758D **Special Topics in Business and Management; Name, Image, and Likeness**

Selected advanced topics in the various fields of graduate study in business.

0501	Stephen Sclafani	Seats (Total: 43)
	Meets January 24, 2024 - March 12, 2024	
	MW 12:00pm - 1:50pm	VMH 1418

BMGT758E **Special Topics in Business and Management; Business Ethics**

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin	Seats (Total: 48)
	Meets March 25, 2024 - May 10, 2024	
	MW 10:00am - 11:50am	VMH 1520

BMGT758G **Special Topics in Business and Management; Global Sports Entrepreneurship**

Selected advanced topics in the various fields of graduate study in business.

0501	Stephen Sclafani	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 12:00pm - 1:50pm	VMH 1412

BMGT758O **Special Topics in Business and Management; Navigating Organizational Networks**

Selected advanced topics in the various fields of graduate study in business.

0501	Sheetal Singh	Seats (Total: 25)
	Meets March 25, 2024 - May 10, 2024	
	MW 4:00pm - 5:50pm	VMH 1511

BMGT758Q **Special Topics in Business and Management; Foundations of Consulting**

Selected advanced topics in the various fields of graduate study in business.

0501	Nicole Coomber	Seats (Total: 18)
	Meets January 24, 2024 - March 12, 2024	
	MW 10:00am - 11:50am	VMH 1418

BMGT758R **Special Topics in Business and Management; Marketing Research Methods**

Selected advanced topics in the various fields of graduate study in business.

0501	Jason Choi	Seats (Total: 15)
	Meets January 24, 2024 - March 12, 2024	
	MW 2:00pm - 3:50pm	VMH 1511

BMGT758T **Special Topics in Business and Management; Entrepreneurship and New Ventures**

Selected advanced topics in the various fields of graduate study in business.

0501	Mike Hoffmeyer	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 1511

BMGT758V **Special Topics in Business and Management; Valuation in Corporate Finance**

Selected advanced topics in the various fields of graduate study in business.

0501	Apoorva Javadekar	Seats (Total: 15)
	Meets January 24, 2024 - March 12, 2024	
	MW 4:00pm - 5:50pm	VMH 1511

BMGT758W **Special Topics in Business and Management; Foundations of AI**

Selected advanced topics in the various fields of graduate study in business.

0501	Balaji Padmanabhan	Seats (Total: 15)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 1336

BMGT758Y **Special Topics in Business and Management; Experiential Learning II**

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin, Roy Thomason	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	W 2:00pm - 3:50pm	Location: TBA
	Class time/details on ELMs	ONLINE

BMGT759 **Independent Study in Management**

(Perm req)

Independent study for Masters students in Management.

0501	Rellie Rozin	Seats (Total: 5)
	Meets January 24, 2024 - March 13, 2024	
	Contact instructor or department for details.	

BMGT808J **Special Topics in Information Systems; Research in Responsible AI**

Special topics specific to the Information Systems doctoral field of study.

0101	Lauren Rhue	Seats (Total: 12)
	Meets January 24, 2024 - March 12, 2024	
	M 1:00pm - 4:30pm	VMH 3332

BMGT808K **Special Topics in Information Systems; AI Design and Policy**

Special topics specific to the Information Systems doctoral field of study.

0101	Balaji Padmanabhan	Seats (Total: 12)
	Meets March 25, 2024 - May 10, 2024	
	Tu 6:00pm - 9:35pm	VMH 4335

BMGT808R **Special Topics in Information Systems; Research Seminar in Decision, Operations and Information Technologies**

Special topics specific to the Information Systems doctoral field of study.

0101	Siva Viswanathan	Seats (Total: 12)
	F 2:00pm - 3:30pm	VMH 1415

BMGT818B **Special Topics in Accounting and Information Assurance; Empirical Financial Accounting Research**

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Rebecca Hann	Seats (Total: 12)
	F 3:00pm - 6:00pm	VMH 3332

BMGT818R **Special Topics in Accounting and Information Assurance; Workshop in Accounting Research**

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Michael Kimbrough	Seats (Total: 12)
	F 10:00am - 11:00am	VMH 3332

BMGT828 **Independent Study in Business and Management**
Contact department for information to register for this course.

BMGT838A **Special Topics in Operations Management/Management Science; Economics of Operations Management**

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Tunay Tunca	Seats (Total: 12)
	Meets March 25, 2024 - May 10, 2024	
	F 12:00pm - 3:40pm	VMH 4335

BMGT838M **Special Topics in Operations Management/Management Science; Machine Learning for Causal Inference and Decision Support**

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Ashish Kabra, Xiaojia Guo	Seats (Total: 12)
	Meets March 25, 2024 - May 10, 2024	
	Tu 2:00pm - 5:40pm	VMH 4335

BMGT838O **Special Topics in Operations Management/Management Science; Operations Management Seminar**

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Yi Xu	Seats (Total: 12)
	Meets January 24, 2024 - March 12, 2024	
	F 1:00pm - 4:40pm	VMH 4335

BMGT838R **Special Topics in Operations Management/Management Science; Research Seminar in Decision, Operations and Information Technologies**

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Zhi-Long Chen	Seats (Total: 15)
	Contact instructor or department for details.	

BMGT843 **Seminar in Portfolio Theory**

Prerequisite: Permission of BMGT-Robert H. Smith School of Business.

Seminar in selected classic and current theoretical and empirical research in portfolio theory.

0101	Mark Loewenstein	Seats (Total: 12)
	Tu 5:00pm - 8:00pm	VMH 3332

BMGT848F **Special Topics in Finance; Workshop in Finance Research**

Special topics specific to the Finance doctoral field of study.

0101	Instructor: TBA	Seats (Total: 12)
	F 10:00am - 12:00pm	VMH 1330

BMGT848O **Special Topics in Finance; New Developments in Corporate and Household Finance**

Special topics specific to the Finance doctoral field of study.

0101	Agustin Hurtado	Seats (Total: 12)
	W 9:30am - 12:30pm	VMH 1326

BMGT858J **Special Topics in Marketing; Structural Models**

Special topics specific to the Marketing doctoral field of study.

0101	Liye Ma	Seats (Total: 10)
	Meets January 24, 2024 - March 12, 2024	
	W 1:00pm - 4:35pm	VMH 2509

BMGT858L **Special Topics in Marketing; Marketing Strategy**

Special topics specific to the Marketing doctoral field of study.

Cross-listed with BDBA858F.Credit only granted for BMGT858L or BDBA858F

0101	Pallassana Kannan	Seats (Total: 15)
	Tu 6:30pm - 10:00pm	VMH 4534

BMGT858R **Special Topics in Marketing; Marketing Research Seminar**

Special topics specific to the Marketing doctoral field of study.

0101	Jason Choi	Seats (Total: 16)
	F 10:00am - 12:30pm	VMH 1415

BMGT868B **Special Topics in Organizational Behavior/Human Resource Management; Factor Analysis and Structural Equation Modeling Workshop**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Gilad Chen	Seats (Total: 12)
	Meets January 24, 2024 - March 12, 2024	
	M 1:00pm - 4:30pm	VMH 4534

BMGT868C **Special Topics in Organizational Behavior/Human Resource Management; Career and Professionalization Workshop in Management and Organization**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	David Waguespack	Seats (Total: 20)
	F 12:30pm - 2:00pm	VMH 2509

BMGT868E **Special Topics in Organizational Behavior/Human Resource Management; Emotions in Organizations**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Myeong-Gu Seo	Seats (Total: 12)
	Meets January 24, 2024 - March 12, 2024	
	MW 9:00am - 12:00pm	VMH 2330

BMGT868G **Special Topics in Organizational Behavior/Human Resource Management; Multilevel Analysis Methods Workshop**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Gilad Chen	Seats (Total: 12)
	Meets March 25, 2024 - May 10, 2024	
	M 1:00pm - 4:30pm	VMH 4534

BMGT868P **Special Topics in Organizational Behavior/Human Resource Management; Organizational Behavior and Human Resource Management Presentations**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Vijaya Venkataramani	Seats (Total: 10)
	Meets January 24, 2024 - May 9, 2024	
	W 11:00am - 12:30pm	VMH 4534

BMGT868X **Special Topics in Organizational Behavior/Human Resource Management; Social Psychological Foundations**

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Jennifer Marr **Meets March 25, 2024 - May 10, 2024** W 9:00am - 12:30pm	Seats (Total: 12) VMH 4535

BMGT878A **Special Topics in Strategic Management and Entrepreneurship; New Methods in Strategy and Entrepreneurship Research: Why, What, and How of Abduction**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rajshree Agarwal, David Kirsch, Brent Goldfarb M 1:30pm - 3:20pm	Seats (Total: 12) ONLINE

BMGT878C **Special Topics in Strategic Management and Entrepreneurship; Cross Discilpinary Workshop in Strategy and Entrepreneurship**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rachelle Sampson Th 11:00am - 12:30pm	Seats (Total: 12) VMH 3330H

BMGT878J **Special Topics in Strategic Management and Entrepreneurship; Entrepreneurial Ecosystems**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Anil Gupta **Meets March 25, 2024 - May 10, 2024** W 1:30pm - 4:45pm	Seats (Total: 12) VMH 3332

BMGT878P **Special Topics in Strategic Management and Entrepreneurship; Strategy and Entrepreneurship PhD Presentations**

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Rajshree Agarwal Th 9:15am - 10:45am	Seats (Total: 20) VMH 3330H

BMGT888W **Special Topics in Supply Chain Management; Workshop in Supply Chain Management**

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Sining Song F 12:00pm - 3:00pm	Seats (Total: 10) VMH 3330H

BMGT898 **Pre-Candidacy Research**
Contact department for information to register for this course.

BMGT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

BMSO Online Business MS Programs Spring 2024

BMSO600 **Data, Models and Decisions**

(Perm req)

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

The field of data analytics is a very vibrant and broad field. The amount of data available and computing power have exploded in recent years. There is an increasing demand for business analysts who can select and apply the appropriate methods and interpret the results within the context of the problem. The goal of this course is to learn methods for exploring data and building models with the purpose of supporting data-driven decision making. The content of the course can be grouped as follows: Data Exploration, Probability, Confidence Interval Estimation, Hypothesis Testing and Regression Analysis. The focus will be on exploring realistic business scenarios, analyzing datasets using the appropriate analytical techniques, interpreting the analytic output within the context of the business scenario and translating the statistical results into actionable insights.

WN01	Maria Bardossy	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO601 **Database Management Systems**

(Perm req)

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

The fundamentals of managing data and information within an organization, including enterprise level platforms and tools for data driven analytics. Includes processes for acquiring and cleaning data, storing data, making it available for analytics, visualizing output, and archiving the data for long term use. Involves computational thinking, covers significant theoretical material on data models and queries, and teaches several different analytics and programming tools.

WN01	John Bono	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BMSO602 **Decision Analytics**

(Perm req)

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

Difficult decisions require spending scarce resources. A 'resource' is any asset used to leverage business objectives, such as time and money. Tradeoffs are involved in allocating resources to one objective as opposed to another. This course develops a quantitative framework for studying resource allocation problems that arise in many industries and areas such as transportation, advertising, finance, and healthcare. The focus will be on translating verbal descriptions into quantitative optimization models, whereby standard tools (such as Microsoft Excel) can be applied to obtain solutions. The course also covers the role of uncertainty and risk in the decision-making process by using Monte-Carlo simulation models.

WN01	Suresh Acharya	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	M 7:00pm - 8:30pm	ONLINE

BMSO603 **Data Mining and Predictive Analytics**

(Perm req)

Prerequisite: Permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in an online Business Master of Science program; or permission of BMGT-Robert H. Smith School of Business.

In the business press, on TV, and in board rooms, 'machine learning,' 'AI,' 'big data' and 'data analytics' are now hot topics. Vast quantities of data are being generated these days, including new types of data such as web traffic, social network data, and reviews and comments on websites. This data is a valuable resource that, when used correctly, can create a competitive edge for companies. Advances in computing hardware and algorithms have significantly improved the quality of predictions and effectiveness of business applications based on them. Expertise in working with data, and a sound knowledge of data mining/machine learning methods, is a much sought after skill. The course provides an introduction to the key tools and techniques of data mining/machine learning, including classification, prediction, cluster analysis, association rules, and text mining. The methods covered are Linear Regression, Logistic Regression, K-nearest neighbors, Naive Bayes, Classification and Regression Trees, Ensemble methods, Neural Networks, K-Means and Hierarchical Clustering, and Association Rules. The focus throughout will be on business applications. Examples from Marketing, Finance, Healthcare, and Operations will be used to illustrate the breadth of applications.

Cross-listed with BDBA808X Credit only granted forBMSO603 or BDBA808X

WN01	Kislaya Prasad	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	Tu 7:00pm - 8:30pm	ONLINE

BMSO758A **Special Topics in Business; Social Media and Web Analytics**

Selected advanced topics in the various fields of graduate study in business.

WN01	Michael Trusov	Seats (Total: 40)
	Meets January 24, 2024 - May 10, 2024	
	Tu 7:00pm - 8:30pm	ONLINE

BMSO758N **Special Topics in Business; Introduction to Financial Accounting**

Selected advanced topics in the various fields of graduate study in business.

WN01	Progyan Basu	Seats (Total: 40)
	Meets January 24, 2024 - March 12, 2024	
	W 7:00pm - 8:30pm	ONLINE

BMSO758Q **Special Topics in Business; Big Data and Artificial Intelligence for Business**

Selected advanced topics in the various fields of graduate study in business.

WN01	Kunpeng Zhang	Seats (Total: 40)
	Meets January 24, 2024 - May 10, 2024	
	M 7:00pm - 8:30pm	ONLINE

BMSO758R **Special Topics in Business; Introduction to Supply Chain Analytics**

Selected advanced topics in the various fields of graduate study in business.

WN01	Philip Evers	Seats (Total: 40)
	Meets March 25, 2024 - May 10, 2024	
	W 7:00pm - 8:30pm	ONLINE

BMSO778B **Special Topics in Business; Digital Transformation in Business**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WM01	Jui Ramaprasad	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	Class time/details on ELMs	ONLINE

BMSO778C **Special Topics in Business; Career Coaching and Development**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WM01	Sarah Wolek	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	Class time/details on ELMs	ONLINE

BMSO778E **Special Topics in Business; Experiential Learning II**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WM01	Roy Thomason	Seats (Total: 30)
	Meets January 24, 2024 - May 10, 2024	
	W 7:00pm - 8:30pm	ONLINE

BMSO778G **Special Topics in Business; Strategic Management**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WM01	Anil Gupta	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	Class time/details on ELMs	ONLINE

BMSO778J **Special Topics in Business; Creative Problem Solving for Leaders**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WM01	Oliver Schlake	Seats (Total: 30)
	Meets March 25, 2024 - May 10, 2024	
	Tu 7:00pm - 8:30pm	ONLINE

BMSO778P **Special Topics in Business; Managerial Economics and Public Policy**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WM01	Jon Crocker	Seats (Total: 30)
	Meets March 25, 2024 - May 10, 2024	
	M 7:00pm - 8:30pm	ONLINE

BSCI courses are offered by the Biological Science Program and individual College of Computer, Mathematical and Natural Sciences departments, as indicated. The sponsoring department for each course is provided in the course listing. Consult the sponsoring department if you have questions about an individual course (sponsoring departments BIOL - Department of Biology, 2227 Biol-Psyc Building; BSCI - Biological Sciences Program, 1322 Symons Hall; CBMG - Department of Cell Biology and Molecular Genetics, 1219 H.J. Patterson Building; ENTM - Entomology, 4112 PLS Building). Registration in course sections which begin with "SES" is restricted to students admitted into the Science in the Evening Program, administered through the Office of Extended Studies. For complete information, visit: http://oes.umd.edu/index.php?slab=sie, e-mail oes@umd.edu , or call 301-405-7762. The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to consult the instructor prior to course enrollment to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required, and what alternatives, if any, are available. The College of Computer, Mathematical, and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.*

BSCI103 **The World of Biology**

Additional information: Not acceptable for degree requirements in Biological Sciences, Chemistry, or Biochemistry.

An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1100	Magdalene Ngeve, Michael Raupp TuTh 12:30pm - 1:45pm M 8:00am - 10:50am	Seats (Total: 24) EGR 1202 HJP 3239	 Lab
1101	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm M 11:00am - 1:50pm	Seats (Total: 24) EGR 1202 HJP 3239	 Lab
1103	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	Seats (Total: 24) EGR 1202 HJP 3239	 Lab
1105	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) EGR 1202 HJP 3239	 Lab
1107	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm Tu 8:00am - 10:50am	Seats (Total: 24) EGR 1202 HJP 3239	 Lab

1108	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) EGR 1202 HJP 3239	 Lab
1109	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) EGR 1202 HJP 3239	 Lab
1110	Michael Raupp, Magdalene Ngeve TuTh 12:30pm - 1:45pm W 8:00am - 10:50am	Seats (Total: 24) EGR 1202 HJP 3239	 Lab

BSCI103M **The World of Biology**

(Perm req)

Additional information: Not acceptable for degree requirements in Biological Sciences, Chemistry, or Biochemistry.

An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized.

(Sponsoring Dept.: BSCI). Must be taken within 12 months of the semester in which BSCI 103 is taken. A student is eligible to take this course only if the lab scores received in BSCI 103 the last time it was taken totalled at least 80 percent of the maximum possible total. These scores will count for part of the grade in BSCI 103M.

0101	Magdalene Ngeve, Michael Raupp TuTh 12:30pm - 1:45pm TBA	Seats (Total: 24) Location: TBA HJP 3239	 Lab

BSCI120 **Insects**

A survey of the major groups of insects, their natural history, and their relationships with humans and their environment. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: ENTM).

0101	Dennis vanEngelsdorp, Cerruti Hooks Tu 2:00pm - 2:50pm Class time/details on ELMs Th 12:00pm - 12:50pm	Seats (Total: 21) PLS 1119 ONLINE PLS 1161	 Discussion

0102	Dennis vanEngelsdorp, Cerruti Hooks Tu 2:00pm - 2:50pm Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 21) PLS 1119 ONLINE PLS 1161	 Discussion

BSCI135 **Amazing Green: Plants that Transformed the World**

In what profound ways have plants changed humanity and the world we live, in today? An interactive way to learn about plants and science, focusing on how, plants have changed human history, the biology of their growth, and the science, behind their use.

(Sponsoring Dept: CBMG). Students must pay a $40.00 laboratory materials fee.

1101	Edgar Moctezuma TuTh 2:00pm - 3:15pm M 12:00pm - 1:50pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
1102	Edgar Moctezuma TuTh 2:00pm - 3:15pm Tu 11:00am - 12:50pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
1103	Edgar Moctezuma TuTh 2:00pm - 3:15pm Tu 3:30pm - 5:20pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
1104	Edgar Moctezuma TuTh 2:00pm - 3:15pm W 9:00am - 10:50am	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
1105	Edgar Moctezuma TuTh 2:00pm - 3:15pm Th 11:00am - 12:50pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab

BSCI145 **The Insect Apocalypse: Real or Imagined?**

Could the ongoing global decline in insect populations portend the end of, terrestrial and freshwater ecosystems? An article in the New York Times, in, 2018, declared an "Insect Apocalypse" that for the first time brought the general,, unexplained declines in insects to the public and suggested a catastrophe awaits, our planet. Scientists have documented the loss of insect species at a rate, exceeding the extinction rates associated with the major geological events in, Earth's history. Based on science and research, students will be provided with, background, and discover on their own, the diversity of the form and functions of, insects, as well as how they evolved and persisted for 400 million years. The, course, designed for students of any major, celebrates the incredible variation of, insect life and what they do to support life on our planet. The course will highlight, the use of scientific research to understand and respond to the global crisis.

Students must pay a $40.00 laboratory materials fee.

0101	Bill Lamp MWF 1:00pm - 1:50pm M 2:00pm - 4:50pm	Seats (Total: 24) BPS 0283 PLS 1161	 Lab
0102	Bill Lamp MWF 1:00pm - 1:50pm W 2:00pm - 4:50pm	Seats (Total: 24) BPS 0283 PLS 1161	 Lab

BSCI160 **Principles of Ecology and Evolution**

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI106 or BSCI160. Formerly: BSCI106.

Basic principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI).

6201	Magdalene Ngeve TuTh 9:30am - 10:45am	Seats (Total: 130) ESJ 1224	
6301	Leo Shapiro MWF 11:00am - 11:50am	Seats (Total: 130) ESJ 1224	
6401	Sarah Lee MWF 1:00pm - 1:50pm	Seats (Total: 140) ESJ 1224	

BSCI161 **Principles of Ecology and Evolution Lab**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6104	Hans Lemke, Michael Keller M 10:00am - 12:50pm	Seats (Total: 23) HJP 3211	 Lab
6107	Michael Keller, Hans Lemke M 3:00pm - 5:50pm	Seats (Total: 23) HJP 3211	 Lab
6108	Hans Lemke, Michael Keller M 3:00pm - 5:50pm	Seats (Total: 23) HJP 3217	 Lab

6204	Michael Keller, Hans Lemke Tu 10:00am - 12:50pm	Seats (Total: 23) HJP 3211	Lab
6207	Michael Keller, Hans Lemke Tu 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6208	Michael Keller, Hans Lemke Tu 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab
6210	Hans Lemke, Michael Keller Tu 5:00pm - 7:50pm	Seats (Total: 23) HJP 3211	Lab
6211	Michael Keller, Hans Lemke Tu 5:00pm - 7:50pm	Seats (Total: 23) HJP 3217	Lab
6304	Hans Lemke, Michael Keller W 11:00am - 1:50pm	Seats (Total: 23) HJP 3211	Lab
6307	Hans Lemke, Michael Keller W 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6308	Michael Keller, Hans Lemke W 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab
6404	Hans Lemke, Michael Keller Th 11:00am - 1:50pm	Seats (Total: 23) HJP 3211	Lab
6407	Hans Lemke, Michael Keller Th 2:00pm - 4:50pm	Seats (Total: 23) HJP 3211	Lab
6408	Hans Lemke, Michael Keller Th 2:00pm - 4:50pm	Seats (Total: 23) HJP 3217	Lab

BSCI170 **Principles of Molecular & Cellular Biology**

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI).

0101	Michael Keller MWF 11:00am - 11:50am	Seats (Total: 190) ESJ 0224	
0201	Nicholas Fletcher MWF 2:00pm - 2:50pm	Seats (Total: 190) ESJ 0224	
0301	Eric Haag TuTh 11:00am - 12:15pm	Seats (Total: 180) ESJ 0224	
0401	Michael Keller MWF 1:00pm - 1:50pm	Seats (Total: 190) ESJ 0224	
0501	Niranjana Krishnan TuTh 2:00pm - 3:15pm	Seats (Total: 150) ESJ 2208	
SES1	James Sniezek Tu 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) PLS 1130	

BSCI171 **Principles of Molecular & Cellular Biology Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1021	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
1023	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
1031	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
1032	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
1033	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab

1034	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
1043	Swarna Mohan M 5:00pm - 7:50pm	Seats (Total: 24) HJP 1235	Lab
2021	Swarna Mohan, Ronald Clark Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
2022	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
2023	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
2024	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1229	Lab
2031	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
2033	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
2034	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
2041	Swarna Mohan Tu 6:00pm - 8:50pm	Seats (Total: 24) HJP 1236	Lab
2042	Swarna Mohan Tu 6:00pm - 8:50pm	Seats (Total: 24) HJP 1226	Lab
3021	Swarna Mohan, Ronald Clark W 10:00am - 12:50pm	Seats (Total: 24) HJP 1236	Lab
3022	Swarna Mohan W 10:00am - 12:50pm	Seats (Total: 24) HJP 1226	Lab
3031	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab

3032	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
3033	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
3034	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
3041	Swarna Mohan W 5:00pm - 7:50pm	Seats (Total: 24) HJP 1236	Lab
3043	Swarna Mohan W 5:00pm - 7:50pm	Seats (Total: 24) HJP 1235	Lab
4021	Swarna Mohan, Ronald Clark Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
4022	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
4023	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
4024	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1229	Lab
4031	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
4032	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
4033	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
4034	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
4042	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 10) HJP 1236	Lab

SES1	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 14) HJP 1236	Lab
	Must be in the Science in the Evening (SIE) Program. Click here for more information.		

BSCI171S **Principles of Molecular & Cellular Biology Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1041	Swarna Mohan M 5:00pm - 7:50pm	Seats (Total: 24) HJP 1236	Lab
2032	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab

BSCI201 **Human Anatomy and Physiology I**

Prerequisite: Minimum grade of C- in BSCI170; or students who have taken courses with comparable content may contact the CMNS-Biology department.

Anatomy and physiology of the skeletal, muscular, neural, endocrine, and sensory systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Caitlin Fox, Maira Goytia MWF 12:00pm - 12:50pm M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	Lab
0102	Maira Goytia, Caitlin Fox MWF 12:00pm - 12:50pm Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 BPS 0205	Lab
0103	Caitlin Fox, Maira Goytia MWF 12:00pm - 12:50pm Tu 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	Lab
0105	Caitlin Fox, Maira Goytia MWF 12:00pm - 12:50pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	Lab

0106	Caitlin Fox, Maira Goytia MWF 12:00pm - 12:50pm Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	 Lab
0107	Caitlin Fox, Maira Goytia MWF 12:00pm - 12:50pm W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	 Lab
0108	Maira Goytia, Caitlin Fox MWF 12:00pm - 12:50pm W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	 Lab
0110	Caitlin Fox, Maira Goytia MWF 12:00pm - 12:50pm Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	 Lab
0111	Maira Goytia, Caitlin Fox MWF 12:00pm - 12:50pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0205	 Lab
1101	Justicia Opoku-Edusei, Caitlin Fox TuTh 12:30pm - 1:45pm M 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0205	 Lab
1103	Justicia Opoku-Edusei, Caitlin Fox TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab
1104	Caitlin Fox, Justicia Opoku-Edusei TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab
1106	Justicia Opoku-Edusei, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab
1107	Caitlin Fox, Justicia Opoku-Edusei TuTh 12:30pm - 1:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) BRB 1101 BPS 0275	 Lab

1108	Caitlin Fox, Justicia Opoku-Edusei TuTh 12:30pm - 1:45pm W 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0205	Lab
1109	Caitlin Fox, Justicia Opoku-Edusei TuTh 12:30pm - 1:45pm W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab
1110	Caitlin Fox, Justicia Opoku-Edusei TuTh 12:30pm - 1:45pm Th 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0205	Lab

BSCI202 **Human Anatomy and Physiology II**

Prerequisite: Minimum grade of C- in BSCI201; or students who have taken courses with comparable content may contact the CMNS-Biology department.

Anatomy and physiology of the cardiovascular, respiratory, immune, digestive, urinary and reproductive systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Caitlin Fox, Edward Orlando TuTh 8:00am - 9:15am M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	Lab
0103	Edward Orlando, Caitlin Fox TuTh 8:00am - 9:15am Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	Lab
0104	Edward Orlando, Caitlin Fox TuTh 8:00am - 9:15am W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	Lab
0105	Edward Orlando, Caitlin Fox TuTh 8:00am - 9:15am W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	Lab
0106	Caitlin Fox, Edward Orlando TuTh 8:00am - 9:15am Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	Lab

0108	Caitlin Fox, Edward Orlando TuTh 8:00am - 9:15am Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0109	Edward Orlando, Caitlin Fox TuTh 8:00am - 9:15am F 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0110	Caitlin Fox, Edward Orlando TuTh 8:00am - 9:15am M 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1101	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1102	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1103	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1104	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Tu 6:30pm - 9:20pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1105	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am W 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1106	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0201	 Lab
1107	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab

1108	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
SES1	Caitlin Fox, Nelson Bennett Tu 6:00pm - 8:50pm Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) HBK 0302H BPS 0201	 Lab

BSCI207 **Principles of Biology III - Organismal Biology**

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And must have completed or be concurrently enrolled in CHEM131.

The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.

(Sponsoring Dept.: BSCI).

0101	Karen Carleton MWF 2:00pm - 2:50pm	Seats (Total: 100) ESJ 1202	
0201	Marcia Shofner W 11:00am - 11:50am	Seats (Total: 100) ONLINE	

BSCI222 **Principles of Genetics**

Prerequisite: CHEM131 and CHEM132; and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or must have completed BSCI105 or (BSCI170 and BSCI171); and two semesters of chemistry.

Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

(Sponsoring Dept.: BSCI).

7106	David Straney MWF 1:00pm - 1:50pm M 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7108	David Straney MWF 1:00pm - 1:50pm W 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion

7110	David Straney MWF 1:00pm - 1:50pm Th 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7112	David Straney MWF 1:00pm - 1:50pm Tu 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7114	David Straney MWF 1:00pm - 1:50pm Tu 8:00am - 9:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7116	David Straney MWF 1:00pm - 1:50pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7120	David Straney MWF 1:00pm - 1:50pm Th 8:00am - 9:50am	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7130	David Straney MWF 1:00pm - 1:50pm Th 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7133	David Straney MWF 1:00pm - 1:50pm Tu 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7214	Kimberly Paczolt MWF 11:00am - 11:50am W 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7216	Kimberly Paczolt MWF 11:00am - 11:50am W 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7218	Kimberly Paczolt MWF 11:00am - 11:50am W 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion

7221	Kimberly Paczolt MWF 11:00am - 11:50am M 12:00pm - 1:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7222	Kimberly Paczolt MWF 11:00am - 11:50am M 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7224	Kimberly Paczolt MWF 11:00am - 11:50am Tu 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7232	Kimberly Paczolt MWF 11:00am - 11:50am M 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7236	Kimberly Paczolt MWF 11:00am - 11:50am Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7310	Raymond StLeger TuTh 9:30am - 10:45am Tu 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7311	Raymond StLeger TuTh 9:30am - 10:45am W 8:00am - 9:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7312	Raymond StLeger TuTh 9:30am - 10:45am M 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
7313	Raymond StLeger TuTh 9:30am - 10:45am M 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
7315	Raymond StLeger TuTh 9:30am - 10:45am W 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion

7320	Raymond StLeger TuTh 9:30am - 10:45am M 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7325	Raymond StLeger TuTh 9:30am - 10:45am W 6:00pm - 7:50pm	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
7332	Raymond StLeger TuTh 9:30am - 10:45am Tu 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	 Discussion
7335	Raymond StLeger TuTh 9:30am - 10:45am W 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion
SES1	Keith Lampel Tu 6:00pm - 8:50pm Th 6:00pm - 7:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 23) PLS 1119 HJP 3233	 Discussion

BSCI223 **General Microbiology**

Prerequisite: BSCI170 and BSCI171; or BSCI105. Credit only granted for: BSCI223 or BSCI283.

How have microorganisms exploited every conceivable ecological niche, and, how have humans harnessed this diversity to improve medicine, agriculture,, and biotechnology? The course covers fundamental concepts in morphology,, physiology, genetics, immunology, ecology, and pathogenic microbiology., Applications of microbiology to medicine, the food industry, and biotechnology.

(Sponsoring Dept.: CBMG) Students must pay a $40.00 laboratory materials fee.

1021	John Buchner TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1025	John Buchner TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1205	 Lab
1026	John Buchner TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1206	 Lab

1101	John Buchner TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1105	John Buchner TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1106	John Buchner TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1121	John Buchner TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1125	John Buchner TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1126	John Buchner TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1201	John Buchner TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1206	John Buchner TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1221	John Buchner TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1225	John Buchner TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab

1226	John Buchner TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
1301	John Buchner TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
1306	John Buchner TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
2401	John Buchner TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1201	 Lab
2406	John Buchner TuTh 11:00am - 11:50am MW 4:00pm - 5:50pm	Seats (Total: 20) BRB 1101 MCB 1206	 Lab
SES1	Elizabeth Emmert TuTh 6:00pm - 6:50pm TuTh 7:00pm - 9:00pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) ONLINE MCB 1201	 Lab

BSCI258A **College Park Scholars Internship**

Credit to be determined by CPS Director. Must be completed by end of sophomore year.

Restriction: For College Park Scholars - Life Sciences students only.

0101	Erin Thomson W 3:30pm - 5:00pm Contact instructor or department for details.	Seats (Total: 10) ESJ 2208	

BSCI258B **College Park Scholars Internship**

Credit to be determined by CPS Director. Must be completed by end of sophomore year.

Restriction: For College Park Scholars - Life Sciences students only.

0101	Erin Thomson W 3:30pm - 5:00pm Contact instructor or department for details.	Seats (Total: 90) ESJ 2208	

BSCI279 **Supplemental Study; Supplemental Study in Biology**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI279B **Supplemental Study; BioFIRE Spring Colloquium**

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Restricted to BioFire students.

0101	Jennifer Carrion, Katerina Thompson M 4:00pm - 4:50pm	Seats (Total: 60) ESJ 2208

BSCI279C **Supplemental Study; Catalyst Program Seminar**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept: BIOL). Recommended for first- and second-year students who have completed one semester of introductory biology or chemistry and are interested in engaging in life sciences undergraduate research. For permission to enroll, contact Kaci Thompson, kaci@umd.edu.

0101	Katerina Thompson M 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 20) PLS 1130 ONLINE

BSCI279H **Supplemental Study; Catalyst Program Seminar**

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept: BIOL).

0101	Katerina Thompson M 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 55) PLS 1130 ONLINE

BSCI279P **Supplemental Study; Undergraduate Teaching Fellows Professional Development Seminar**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Prerequisite: permission of department.

Contact department for information to register for this course.

BSCI279Q **Supplemental Study; Readings in Neurophysiology**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

0101	Daniel Butts, Ricardo Araneda	Seats (Total: 10)
	Contact instructor or department for details.	

BSCI279R **Supplemental Study; Undergraduate Research Rotation**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI279T **Supplemental Study; BSCI Learning Assistants**

(Perm req)

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Contact department for information to register for this course.

BSCI283 **Principles of Microbiology**

Prerequisite: BSCI222. Restriction: Must be in a major within Biological Sciences; or permission of CMNS-Cell Biology & Molecular Genetics. Credit only granted for: BSCI223 or BSCI283. Additional information: Priority given to BSCI, BCHM and CHEM majors.

What makes microorganisms genetically, physiologically, and biochemically, unique among organisms in the tree of life? An introduction to microorganisms, designed for science majors. Genetic principles underlying microbial abilities;, microbial structure-function relationships; metabolism, physiology, and ecology, of microorganisms; interactions between microorganisms (including pathogens), and their hosts.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1205	Daniel Stein MW 10:00am - 10:50am MW 12:00pm - 1:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab
1305	Daniel Stein MW 10:00am - 10:50am MW 2:00pm - 3:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab

BSCI289 **Off-Campus Internship**

(Perm req)

Elective credit for formally established off-campus research internship. Permission of Director of Outreach required.

(Sponsoring Dept.: BSCI). Provides credit for off-campus research internships. This credit counts as elective toward graduation, but does not satisfy any Biological Sciences degree requirements (For information about research credit that does count toward Biological Sciences contact the Biological Sciences Program, room 1322 Symons Hall). This requires that a contract form be filed with the Director of Undergraduate Research and Internship Programs, Room 1313 Symons Hall, prior to the internship. The contract must be finalized and signed by the research supervisor at the end of the semester before credit will be awarded.

1110	Katerina Thompson Contact instructor or department for details.	Seats (Total: 15)
1111	Katerina Thompson Contact instructor or department for details.	Seats (Total: 50)

BSCI329 **Instructional Assistance Practicum**

(Perm req)

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

(Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequiste: permission of department.

1016	Hilary Bierman Contact instructor or department for details.	Seats (Total: 5)
1028	Daniel Butts Contact instructor or department for details.	Seats (Total: 10)

1033	Chan Lin Contact instructor or department for details.	Seats (Total: 10)	
1250	Justicia Opoku-Edusei Contact instructor or department for details.	Seats (Total: 20)	
ESG1	Hadiya Woodham Contact instructor or department for details. *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 10)	

BSCI329H **Instructional Assistance Practicum; Honors Instructional Assistance Practicum**

(Perm req)

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

(Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major. Prerequiste: permission of department.

2080	Sabrina Kramer, Todd Cooke Contact instructor or department for details.	Seats (Total: 20)	

BSCI330 **Cell Biology and Physiology**

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Corine Van der Weele, Sergei Sukharev MWF 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0102	Corine Van der Weele, Sergei Sukharev MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab

0104	Sergei Sukharev, Corine Van der Weele MWF 10:00am - 10:50am Tu 9:30am - 12:20pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0106	Sergei Sukharev, Corine Van der Weele MWF 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0107	Sergei Sukharev, Corine Van der Weele MWF 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0108	Corine Van der Weele, Sergei Sukharev MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0110	Sergei Sukharev, Corine Van der Weele MWF 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
0111	Sergei Sukharev, Corine Van der Weele MWF 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab
1101	Kenneth Frauwirth, Corine Van der Weele TuTh 11:00am - 12:15pm M 9:00am - 11:50am	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1102	Corine Van der Weele, Kenneth Frauwirth TuTh 11:00am - 12:15pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1104	Corine Van der Weele, Kenneth Frauwirth TuTh 11:00am - 12:15pm Tu 2:30pm - 5:20pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1105	Corine Van der Weele, Kenneth Frauwirth TuTh 11:00am - 12:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab

1106	Kenneth Frauwirth, Corine Van der Weele TuTh 11:00am - 12:15pm W 9:00am - 11:50am	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1107	Kenneth Frauwirth, Corine Van der Weele TuTh 11:00am - 12:15pm W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1108	Corine Van der Weele, Kenneth Frauwirth TuTh 11:00am - 12:15pm W 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
SES1	Elizabeth Read-Connole, Corine Van der Weele Tu 6:30pm - 9:30pm Th 6:30pm - 9:30pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) PLS 1176 PLS 1176	 Lab

BSCI334 **Mammalogy**

Prerequisite: Minimum grade of C- in BSCI207. And minimum grade of C- in BSCI160 and BSCI161; or minimum grade of C- in BSCI106.

Introduction to the biology of mammals, including evolution, physiological, and behavioral specializations.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and ECEV.

0101	Katerina Thompson TuTh 12:30pm - 1:45pm	Seats (Total: 75) ESJ 0215	

BSCI335 **Mammalogy Laboratory**

Prerequisite: Minimum grade of C- in BSCI160 and BSCI161; or minimum grade of C- in BSCI106. And minimum grade of C- in BSCI207; and must have completed or be concurrently enrolled in BSCI334.

Lab and field techniques for the study of mammals, focusing on their identification, anatomy, histology, spatial distribution, ecology, and behavior.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Katerina Thompson Tu 2:00pm - 4:50pm	Seats (Total: 20) HJP 2230	 Lab

0102	Katerina Thompson W 2:00pm - 4:50pm	Seats (Total: 20) HJP 2230	Lab

BSCI337 **Biology of Insects**

Prerequisite: BSCI160 and BSCI161; or BSCI106; or permission of CMNS-Entomology department.

An overview of the biology, evolution and diversity of insects and their relatives. Insect morphology, physiology, behavior and ecology; the impact of insects on humanity and the management of pest insect populations; assembly of an insect collection is required.

(Sponsoring Dept.: ENTM). Specialization Areas: GENB and ECEV. Students must pay a $40.00 laboratory materials fee.

0101	Leo Shapiro TuTh 9:30am - 10:45am Tu 2:00pm - 4:50pm	Seats (Total: 20) BPS 0283 PLS 1161	Lab
0102	Leo Shapiro TuTh 9:30am - 10:45am Th 2:00pm - 4:50pm	Seats (Total: 20) BPS 0283 PLS 1161	Lab

BSCI338C **Special Topics in Biology; Pathophysiology of Cardiac Disorders**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

This course is designed to apply the basics of science to medical disorders of the heart, starting with anatomy and physiology with progression into how alterations to the system can lead to dysfunction. Lectures will also include guest speakers from various medical fields.

PDS1	Marie Bergmeyer F 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) ONLINE	

BSCI338D **Special Topics in Biology; Complexity of Cancer**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338F **Special Topics in Biology; iGEM Research Seminar**

(Perm req)

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL). Restriction: Permission of instructor. Also offered as BIOE389F. Credit grandted for BSCI338F or BIOE389F. This course is open to iGEM team members to develop a synthetic biology research project for the internatial Genetically Engineered Machines competition.

0101	Edward Eisenstein, Jason Kahn	Seats (Total: 30)
	W 4:15pm - 6:15pm	PLS 1111

BSCI338I **Special Topics in Biology; Medical Biotechnology & Drug Development**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338J **Special Topics in Biology; Medical Exploration of HIV/AIDS**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338M **Special Topics in Biology; Human Health and Disease: A Clinical Approach**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338N **Special Topics in Biology; Hormones and Behavior**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisite: C- or better in BSCI207, NEUR200, or PSYC202. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV, GENB (Cell Biology category), and PHNB. Cross-listed with PSYC489G. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	BPS 1238

BSCI338O **Special Topics in Biology; Readings in Developmental Biology**

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology category) and PHNB. Prerequisite: C- or better in BSCI430.

0101	William Jeffery Tu 2:00pm - 4:30pm	Seats (Total: 15) BPS 2249

BSCI338Z **Special Topics in Biology; Field Research**

(Perm req)

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept: BIOL). Cannot be used as credit toward the major requirements for any Biological Sciences major. Contact the Biology Department Undergraduate Office for course information.

Contact department for information to register for this course.

BSCI339C **Selected Topics in Biology; Cell Biology Lab**

(Perm req)

Lectures, seminars, and other selected instruction courses in various biological subject matter.

(Sponsoring Dept.: BIOL). Credit will be granted for BSCI330 or BSCI339C. Students must pay the $40.00 laboratory materials fee.

Contact department for information to register for this course.

BSCI339Z **Selected Topics in Biology; Cell Death and Cancer Research Seminar**

(Perm req)

Lectures, seminars, and other selected instruction courses in various biological subject matter.

ESG1	Hadiya Woodham Th 2:00pm - 5:00pm	Seats (Total: 10) BLD4 3322
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI343 **Cellular Mechanisms of Aging and Disease**

Prerequisite: Minimum grade of C- in BSCI330. Credit only granted for: BSCI339I or BSCI343. Formerly: BSCI339I.

Explore how alterations in normal cellular and molecular processes lead to both aging and a variety of non-infectious human diseases currently plaguing our society. Students will read, analyze, and discuss current primary and secondary literature in the field of cell biology and biomedicine.

ESG1	Hadiya Woodham Tu 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 25) BLD4 4335 ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI348 **Special Topics in Cell Biology and Molecular Genetics**

(Perm req)

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). May be repeated, but only 3 credits may be applied to major requirements.

Contact department for information to register for this course.

BSCI348A **Special Topics in Cell Biology and Molecular Genetics; Scientific Teaching Internship**

(Perm req)

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). Students will act as Undergraduate Teaching Assistants for BSCI223. Prerequisite: A or B in BSCI223 and permission of instructor. Student must be available for one of the BSCI223 lab periods. Students interested in this teaching/leadership opportunity should contact Dr. John Buchner for application information: JBuchner@umd.edu. This course is applicable for the Enrichment credits required of all Biological Sciences students in majors with 0404 codes. For others this is elective credit.

0101	John Buchner	Seats (Total: 22)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

BSCI348I **Special Topics in Cell Biology and Molecular Genetics; Scientific Reading in Infectious Disease Processes**

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

SES1	Volker Briken	Seats (Total: 15)
	Tu 6:00pm - 9:00pm	BRB 3101
	Must be in the Science in the Evening (SIE) Program. Click here for more information.	

BSCI348R **Special Topics in Cell Biology and Molecular Genetics; Microbiology Internship**

(Perm req)

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). This course is an opportunity for students interested in microbiology to pursue a research project in an off-campus lab. The student must see the instructor and complete an information sheet found on the web site, prior to enrolling in the course.

0101	Najib El-Sayed Contact instructor or department for details.	Seats (Total: 10)

BSCI353 **Principles of Neuroscience**

Prerequisite: 1 course with a minimum grade of C- from (BSCI207, BSCI330). Corequisite: PHYS122, PHYS142, or PHYS132. Credit only granted for: BSCI353 or NEUR306. Additional information: Credit cannot be applied to the requirements of any Neuroscience Major.

Principles of nervous system function, ranging from molecular and cellular basis of neuron function through nervous system integration.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG, GENB, and PHNB.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 60) BPS 1243
0102	Chan Lin MWF 1:00pm - 1:50pm	Seats (Total: 60) BPS 1250
ESG1	Lorin Milescu MW 11:15am - 12:30pm *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 40) BLD4 5308

BSCI358A **Special Topics in Biological Sciences at Shady Grove; Physiology of Pain and Evidence-based CAM**

Elective credit designed to allow undergraduate students to partake in focused academic experiences, to gain exposure to emerging issues, or to learn specialized content not represented in the main curriculum.

An exploration of the basic physiology of pain and chronic pain disorders, how these conditions are treated allopathically, and the various philosophies, practitioners, techniques, and evidence of efficacy of complementary and alternative modalities (CAM) therapeutics currently in use in the United States to treat chronic pain disorders. A discussion of the societal impacts of chronic pain will also be explored. Restrictions: Restricted to Biological Sciences Majors at Shady Grove. Does not count towards Biology major requirements.

ESG1	Vitaly Stepensky Tu 12:00pm - 1:15pm Class time/details on ELMs	Seats (Total: 40) BLD4 4321 ONLINE

BSCI358B **Special Topics in Biological Sciences at Shady Grove; Biotechnological and Biomedical Approaches in Global Health**

Elective credit designed to allow undergraduate students to partake in focused academic experiences, to gain exposure to emerging issues, or to learn specialized content not represented in the main curriculum.

Examines how new biotechnologies and/or biomedical approaches and innovations can be used to address major global health challenges and programs. Students will be introduced to the worlds vast diversity of determinants of health and disease, as well as the various contributing factors of global and community health and will apply their understanding of biotechnology/biomedicine to solve real world problems facing public health officials today. Restrictions: Restricted to Biological Sciences Majors at Shady Grove. Does not count towards Biology major requirements.

ESG1	Gregory Simon	Seats (Total: 20)	
	Class time/details on ELMs	ONLINE	

BSCI358C **Special Topics in Biological Sciences at Shady Grove; Bioethics of Biotechnology**

Elective credit designed to allow undergraduate students to partake in focused academic experiences, to gain exposure to emerging issues, or to learn specialized content not represented in the main curriculum.

From agricultural technologies such as genetically engineered corn/rice with betacarotene to optimize vitamin A synthesis, to the use of CRISPR to edit genes of interest in animal and human embryos, biotechnological breakthroughs often raise ethical concerns that need to be examined and addressed. This course will explore how philosophical concepts/theories and social policies can be used to study and reflect on some of the complex ethical issues in emerging biotechnological research. Restrictions: Restricted to Biological Sciences Majors at Shady Grove. Does not count towards Biology major requirements.

ESG1	Emmanuel Kornyo	Seats (Total: 40)	
	Th 12:00pm - 1:15pm	BLD4 4321	
	Class time/details on ELMs	ONLINE	

BSCI361 **Principles of Ecology**

Prerequisite: BSCI160 and BSCI161; or BSCI106. And (MATH130, MATH136, or MATH140).

Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

(Sponsoring Dep.: ENTM). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB.

0101	Daniel Gruner	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	PLS 1130	
	W 1:00pm - 1:50pm	PLS 1115	Discussion

0102	Daniel Gruner	Seats (Total: 25)	
	TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	PLS 1130 PLS 1115	Discussion

BSCI370 **Principles of Evolution**

Prerequisite: Minimum grade of C- in BSCI160, BSCI161, and BSCI222 .

Understanding evolutionary processes in a natural and human environment, including adaptation; DNA sequence, protein, and genome evolution; evolution of developmental mechanisms; mechanisms of evolutionary change (mutation, natural selection, drift); epidemiology; coevolution and biological control; speciation; comparative methods; extinction and conservation; human evolution.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, GENB, and ECEV.

0101	Nicholas Fletcher	Seats (Total: 85)
	MWF 10:00am - 10:50am	PLS 1140

BSCI378H **Cell Biology and Molecular Genetics Department Honors Seminar**

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: CBMG). Corequisite: BSCI379H. Restricted to students participating in the CBMG Departmental Honors Program.

Click here for more course information.

0101	William Snell	Seats (Total: 23)
	F 2:00pm - 2:50pm	BRB 3101

BSCI379G **Cell Biology and Molecular Genetics Department Research; Research in Cell Biology and Molecular Genetics**

(Perm req)

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Prequisite: permission of department. See CBMG department Undergraduate office. (Sponsoring Dept: CBMG).

Contact department for information to register for this course.

BSCI379H **Cell Biology and Molecular Genetics Department Honors Research**

(Perm req)

Student should consult program guidelines. Research project carried out under guidance of faculty advisor.

Corequisite: BSCI378H. Restricted to students participating in the CBMG Departmental Honors Program. (Sponsoring Dept.: CBMG).

Click here for more course information.

Contact department for information to register for this course.

BSCI379L **Cell Biology and Molecular Genetics Department Research; Lab Research**

(Perm req)

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Any combination of 3 credits of BSCI379G, BSCI379L, and BSCI379H can be used to satisfy the enrichment requirement in CEBG, ECEV, MICB, or PHNB or an upper-level elective in GENB. Students must have successfully completed at least one semester in a Cell Biology & Molecular Genetics department research lab before getting permission to take BSCI379L in the same lab. Students completing at least 4 credits of laboratory research including at least one semester taking BSCI379L may substitute this experience for one of the two upper-level laboratory courses required to complete any BSCI major.

Contact department for information to register for this course.

BSCI389 **Entomology Department Research**

(Perm req)

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389H **Entomology Department Research; Honors Research**

(Perm req)

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389L **Entomology Department Research; Lab Research**

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

Contact department for information to register for this course.

BSCI392 **Biology of Extinct Animals**

Prerequisite: BSCI160 and BSCI161; or BSCI106. Cross-listed with: GEOL391. Credit only granted for: GEOL391 or BSCI392.

A survey of extinct animals that have few, if any, direct living descendants. The principles governing the functional design of animals will be used to infer life styles for extinct, and frequently bizarre, organisms.

0101	John Merck	Seats (Total: 65)	
	MWF 10:00am - 10:50am	CCC 1205	

BSCI393 **Biology of Extinct Animals Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in BSCI392. Cross-listed with: GEOL392. Credit only granted for: GEOL392 or BSCI393.

An overview of the techniques used in paleobiological reconstructions of extinct animals.

0101	John Merck	Seats (Total: 24)	
	W 11:00am - 1:50pm	PLS 1161	Lab

BSCI398H **Biology Department Honors Seminar**

(Perm req)

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: BIOL). Prerequisite: permission of department.

0101	Alexandra Bely	Seats (Total: 35)
	M 4:00pm - 4:50pm	BPS 1208

BSCI399 **Biology Department Research; Biology Department Research**

(Perm req)

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

(Sponsoring Dept: BIOL)

Contact department for information to register for this course.

BSCI399H **Biology Department Honors Research**

(Perm req)

A laboratory research problem; required each semester during honors participation and culminating in an honors thesis.

(Sponsoring Dept: BIOL).

Contact department for information to register for this course.

BSCI399L **Biology Department Research; Biology Lab Research**

(Perm req)

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

Contact department for information to register for this course.

BSCI401 **Animal Communication**

Prerequisite: BSCI160 and BSCI161; or BSCI106. And must have completed one semester of physics; and must have completed one semester of organic chemistry. Recommended: A course in animal behavior or biopsychology. Credit only granted for: BSCI401, BSCI338W or BIOL708W. Formerly: BSCI338W.

Examining the mechanisms by which animal produce and receive signals in each sensory modality; and quantifying the type and amount of information conveyed in signals and how animals attend to such information.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization Areas: ECEV, GENB (Ecology, Behavioral & Organismal category), and PHNB. Credit only granted for BSCI401, BSCI338W, or BIOL708W. Examining the mechanisms by which animals produce and receive signals in each sensory modality; and quantifying the type and amount of information conveyed in signals and how animals attend to such information.

0101	Gerald Wilkinson	Seats (Total: 36)
	TuTh 3:30pm - 4:45pm	ESJ 1309

BSCI403 **Biology of Vision**

Prerequisite: Minimum grade of C- in BSCI207, NEUR306, or BSCI353. Recommended: BSCI222.

An upper level undergraduate course on the physical, molecular, and neural basis of vision.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV, GENB (Ecology, Behavioral & Organismal category), and PHNB.

0101	Juan Angueyra	Seats (Total: 40)
	MW 2:00pm - 3:15pm	BPS 1236

BSCI410 **Molecular Genetics**

Prerequisite: BSCI222. And must have completed CHEM233; or (CHEM231 and CHEM232).

An advanced genetics course emphasizing the molecular basis of gene structure and function in the context of modern approaches to the genetics of humans and model organisms.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences specialization areas: PHNB, CEBG, GENB and ECEV.

0101	Louisa Wu TuTh 11:00am - 12:15pm	Seats (Total: 180) HJP 0226	

BSCI412 **Microbial Genetics**

Prerequisite: BSCI222; and (BSCI223 or BSCI283).

A laboratory/lecture based course that covers the fundamentals of mutation, mobile genetic elements and transmission genetics of microbial organisms using both classical and molecular approaches.

(Sponsoring Dept: CBMG). Acceptable toward Biological Sciences Specialization Areas: MICB, CEBG, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Erin Tran, Wade Winkler TuTh 12:30pm - 1:20pm TuTh 1:30pm - 4:30pm	Seats (Total: 18) BPS 0283 MCB 1143	 Lab
0103	Erin Tran, Wade Winkler TuTh 12:30pm - 1:20pm TuTh 1:30pm - 4:30pm	Seats (Total: 18) BPS 0283 MCB 1138	 Lab

BSCI413 **Recombinant DNA**

Prerequisite: BSCI330, BSCI223, or BSCI230; and BSCI222. Formerly: ZOOL452.

An advanced course presenting the tools and procedures of genetic engineering. Theory and practical applications of recombinant DNA techniques to understanding eukaryotic gene structure and expression.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI414 **Recombinant DNA Laboratory**

Prerequisite: BSCI222.

An advanced course offering hands-on experience in performing recombinant DNA experiments. All current molecular biology techniques used for cloning prokaryotic genes, analyzing the gene products, and modifying the genes will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.

ESG1	Nidhi Verma Class time/details on ELMs F 12:30pm - 3:30pm	Seats (Total: 24) ONLINE BLD4 5322	 Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

BSCI416 **Human Genetics**

Prerequisite: Minimum grade of C- in BSCI410. Recommended: BSCI330.

Approaches to human genetics and applications to biology and medicine focusing on specific human genetic topics using primary research papers as the main resource.

(Sponsoring Dept.: CBMG).

0101	John Moult, Stephen Mount	Seats (Total: 48)
	MW 3:30pm - 4:45pm	ESJ 2212

BSCI417 **Microbial Pathogenesis**

Prerequisite: BSCI222; and (BSCI223 or BSCI283). Restriction: Junior standing or higher.

Current research in microbial pathogenesis and the molecular and cellular basis of bacterial disease. Comprehensive overview of the molecular basis of pathogenesis with a focus on model microbial systems to illustrate mechanisms of disease pathogenesis. Topics covered: how microorganisms attach to and enter cells; how host cells are damaged by microbial products; how the host responds to invasion; and host-pathogen evolution.

0101	Vincent Lee	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 0123

BSCI420 **Cell Biology Lectures**

Prerequisite: BSCI330, BSCI222, CHEM231, and CHEM232. Credit only granted for: BSCI420 or BSCI421.

Molecular and biochemical bases of cellular organization and function in eukaryotes.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: PHNB, CEBG, and GENB.

0101	Sougata Roy	Seats (Total: 78)
	TuTh 11:00am - 12:15pm	PLS 1140

BSCI422 **Principles of Immunology**

Prerequisite: BSCI222. Recommended: BSCI330; and (BSCI223 or BSCI283). Restriction: Junior standing or higher.

The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

(Sponsoring Dept.: CMBG). Acceptable toward Biological Sciences Specialization Areas: PHNB, MICB, CEBG, and GENB. Jointly offered with CBMG699W.

0101	David Mosser, Kenneth Frauwirth MW 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 25) ESJ 1202 ATL 2316	 Discussion
0102	Kenneth Frauwirth, David Mosser MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ESJ 1202 CCC 1105	 Discussion
0103	Kenneth Frauwirth, David Mosser MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 25) ESJ 1202 CCC 1105	 Discussion
0104	David Mosser, Kenneth Frauwirth MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 1202 EGR 2154	 Discussion

BSCI423 **Immunology Laboratory**

Prerequisite: BSCI222. Corequisite: BSCI422. Recommended: BSCI223 or BSCI283. Restriction: Junior standing or higher.

Current techniques for assessment of immune status and evaluation of the immune response, including monoclonal antibody production, Western blotting, cytokine assays, ELISA and flow cytometry.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas:PHNB, MICB, CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Margaret Seeley-Fallen, Wenxia Song MW 2:00pm - 3:50pm	Seats (Total: 18) MCB 1143	 Lab
0102	Margaret Seeley-Fallen, Wenxia Song MW 1:00pm - 2:50pm	Seats (Total: 18) MCB 1135	 Lab

BSCI424 **Pathogenic Microbiology**

Prerequisite: BSCI223 or BSCI283.

The role of bacteria and fungi in the diseases of humans with emphasis upon the differentiation and culture of microorganisms, types of disease, modes of disease transmission, prophylactic, therapeutic, and epidemiological aspects.

(Sponsoring Dept.: CBMG) Acceptable toward Biological Sciences Program Specialization Areas: MICB, and GENB.

Contact department for information to register for this course.

BSCI425 **Advanced Cell Biology Lab Practices**

Prerequisite: Must have completed BSCI330, BSCI222, CHEM231, and CHEM232; and must have completed or be concurrently enrolled in BSCI420. Credit only granted for: BSCI421, BSCI425, or BSCI348C.

Experimental techniques used to study the molecular, structural, and spatial organization of plant and animal cells. Using a combination of in vitro assays aimed at analyzing macromolecular and subcellular components and in vivo analyses designed to reveal the inner architecture of a typical eukaryotic cell, students will have an opportunity to: improve some of the basic technical and conceptual skills they acquired in an introductory cell biology course; develop a more sophisticated understanding of the nature of experimental cell manipulation; and tackle the ongoing challenge of articulating their findings in both written and oral communication.

(Sponsoring Dept: CBMG. Students must pay a $40.00 laboratory materials fee.

0101	Kan Cao	Seats (Total: 20)	
	W 1:00pm - 4:50pm	HJP 2226	Lab

BSCI426 Global Change Biology

Prerequisite: Minimum grade of C- in BSCI207. Recommended: BSCI361 and BSCI370.

Explore the biology of past, present and future global change and its impacts on the diversity of life. Focus on mechanisms of global change; organismal responses to that change, examples of past change, estimates of future change, and approaches to mitigation.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Karen Carleton	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	PLS 1119

BSCI430 Developmental Biology

Prerequisite: BSCI222 and BSCI330.

Structural, functional and regulatory events and mechanisms that operate during development to produce an integrated, multicellular organism composed of a multitude of differentiated cell types.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG(Cell Biology), ECEV, GENB (Cell Biology, Development, Physiology) and PHNB

0101	Caitlin Fox	Seats (Total: 36)
	MW 3:30pm - 4:45pm	BPS 0283

BSCI433 Biology of Cancer

Prerequisite: BSCI222 and BSCI330; or permission of CMNS-Biological Sciences UG Program.

Causes and consequences of neoplastic transformations at the biochemical and cellular levels.

(Sponsoring Dept.: BIOL). Acceptable towards Biological Sciences Specialization Areas: PHNB, CEBG, and GENB.

0101	Carmen Cantemir-Stone MF 9:00am - 9:50am W 9:00am - 9:50am	Seats (Total: 100) BPS 1250 ONLINE

BSCI436 **RNA Biology and Therapeutics**

Prerequisite: BSCI330. Recommended: BSCI410. Restriction: Must have junior standing or higher.

The prediction of RNA structure from its sequence, and how the many types of cellular and viral RNAs function in and regulate cellular processes. Use of RNA-based drugs for controlling disease through RNA targeting, editing and vaccines.

0101	Anne Simon, Jonathan Dinman TuTh 9:30am - 10:45am	Seats (Total: 30) PLS 1117

BSCI437 **General Virology**

Prerequisite: BSCI222; or permission of CMNS-Biological Sciences UG Program. Restriction: Junior standing or higher.

Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

(Sponsoring Dept.: CBMG). Specialization Areas: MICB, CEBG, and GENB.

0101	Jeffrey DeStefano MWF 11:00am - 11:50am	Seats (Total: 60) PLS 1130
ESG1	Gilad Ofek TuTh 10:00am - 11:15am *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 40) BLD4 5308

BSCI439A **Undergraduate Advanced Selected Topics in Biology; Invertebrate Biology**

Lectures, seminars, mini-courses, and other special instruction in various biological subjects.

Prerequisite: C- or better in BSCI207. Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal category). Overview of the biology of invertebrate animals, with emphasis on freshwater and marine invertebrates. The focus will be on the functional biology of invertebrates including comparative morphology, feeding, locomotion, respiration, salt balance, defense, control systems, behavior, life history, and reproduction.

0101	Alexandra Bely MWF 11:00am - 11:50am	Seats (Total: 35) BPS 1236	

BSCI439B **Undergraduate Advanced Selected Topics in Biology; Infectious Diseases: Host-Pathogen Interactions and Global Impacts**

Lectures, seminars, mini-courses, and other special instruction in various biological subjects.

Prerequisite: C- or better in BSCI330. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology, Development, Physiology) and PHNB. Comprehensive overview of the fundamental principles of host-pathogen interactions in the context of infectious diseases and their impact at the community level and worldwide. Emphasis will be placed on public health and health disparities observed through infectious diseases. Investigation of major groups of pathogens, including bacteria, viruses, and parasites, and the diseases they cause with a focus on molecular and cellular mechanisms.

0101	Maira Goytia MWF 10:00am - 10:50am	Seats (Total: 30) ESJ B0320	

BSCI442 **Plant Physiology**

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in PLSC201; and minimum grade of C- in CHEM231 and CHEM232; or minimum grade of C- in CHEM237. Cross-listed with: PLSC400. Credit only granted for: BSCI442 or PLSC400.

An in-depth examination of the unique molecular and physiological principles necessary to understand how plants grow and respond to the environment at the cellular and organismal levels. Plants evolved unique metabolism and survival strategies, so students should be prepared to enter a world that may be new to them.

(Sponsoring Dept.: BSCI) Students must pay a $40.00 laboratory materials fee.

0101	Daniel Rodriguez Leal, Jose Feijo MWF 1:00pm - 1:50pm Tu 9:00am - 12:00pm	Seats (Total: 10) PLS 1130 PLS 1153	 Lab
0102	Jose Feijo, Daniel Rodriguez Leal MWF 1:00pm - 1:50pm Tu 12:30pm - 3:30pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab
0103	Daniel Rodriguez Leal, Jose Feijo MWF 1:00pm - 1:50pm Tu 4:00pm - 7:00pm	Seats (Total: 20) PLS 1130 PLS 1153	 Lab

BSCI446 **Neural Systems**

Prerequisite: Minimum grade of C- in BSCI353 or NEUR306.

Neural development, followed by sensory, motor and integrative system organization in the central nervous system.

(Sponsoring Dept.: BIOL) Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	Ricardo Araneda TuTh 12:30pm - 1:45pm	Seats (Total: 40) PLS 1119

BSCI447 **General Endocrinology**

Prerequisite: BSCI330, CHEM241, and CHEM242.

Functions and dysfunctions of the endocrine system with special reference to mammals.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Sciences Program Specialization Areas: PHNB, and GENB.

0101	William Meruvia TuTh 11:00am - 12:15pm	Seats (Total: 70) ONLINE

BSCI450 **Mammalian Systems Physiology**

Prerequisite: Minimum grade of C- in BSCI330; and minimum grade of C- in CHEM233 or both CHEM231 and CHEM232. Credit only granted for: BIOL708M, BSCI338L, BSCI440, or BSCI450.

A study of the cardiovascular, hemopoietic, gastrointestinal, renal, and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology, Development, Physiology category) and PHNB.

0101	Justicia Opoku-Edusei TuTh 9:30am - 10:45am	Seats (Total: 100) BPS 1243
0201	Scott Juntti TuTh 12:30pm - 1:45pm	Seats (Total: 120) BPS 1250
PDS1	William Higgins Th 6:00pm - 9:00pm Class time/details on ELMs *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 20) ONLINE ONLINE

BSCI451 **Mammalian Systems Physiology Laboratory**

Prerequisite: Must have completed with a minimum of C- or be concurrently enrolled in either BSCI440 or BSCI450. Credit only granted for: BSCI441 or BSCI451. Formerly: BSCI441.

Laboratory exercises in experimental mammalian physiology.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology, Development, Physiology category) and PHNB. Students must pay a $40.00 laboratory materials fee.

0101	Corine Van der Weele M 12:00pm - 12:50pm M 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0102	Corine Van der Weele M 12:00pm - 12:50pm Tu 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0103	Corine Van der Weele M 12:00pm - 12:50pm W 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0104	Corine Van der Weele M 12:00pm - 12:50pm Th 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab

BSCI452 Diseases of the Nervous System

Prerequisite: Minimum grade of C- in BSCI330; and must have completed with a minimum of C- or be concurrently enrolled in either BSCI353 or NEUR306. Credit only granted for: BSCI452, BIOL708E, or NACS728N.

An advanced course covering the neuroanatomy, function, and organization of the nervous system and its implication for pathology and disease.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology, Development, Physiology category) and PHNB.

0101	Chan Lin TuTh 2:00pm - 3:15pm	Seats (Total: 40) BPS 0283

BSCI453 Biology of Hearing

Prerequisite: Minimum grade of C- in BSCI207 or NEUR200. Recommended: BSCI353 or NEUR306.

Acoustic and neural basis of hearing. The auditory system will be described with a comparative approach across species.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology, Development, Physiology category) and PHNB.

0101	Nikolas Francis TuTh 9:30am - 10:45am	Seats (Total: 30) PLS 1119	

BSCI454 **Neurobiology Laboratory**

Prerequisite: Minimum grade of C- in BSCI330; must have completed or be concurrently enrolled in BSCI353; and must have completed or be concurrently enrolled in PHYS122, PHYS132, or PHYS142. Credit only granted for: BSCI454, BSCI455, NEUR405, or PSYC401.

Basic neuroanatomical techniques, intracellular and extracellular recordings of electrical potentials from nerve and muscle.

(Sponsoring Dept.: BIOL). Specialization areas: CEBG, PHNB, and GENB. Students must pay a $40.00 laboratory materials fee.

ESG1	Lorin Milescu W 1:00pm - 4:50pm Class time/details on ELMs	Seats (Total: 16) BLD4 5322 ONLINE	 Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

BSCI455 **Neuroscience Laboratory**

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: NEUR405. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology), GENB (Cell Biology, Development, Physiology), and PHNB. Students must pay a $40.00 lab fee.

0101	Hilary Bierman F 10:00am - 11:50am Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab
0102	Hilary Bierman F 10:00am - 11:50am W 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab
0103	Hilary Bierman F 10:00am - 11:50am W 2:00pm - 6:00pm	Seats (Total: 16) ESJ 2212 BPS 0263	 Lab

0104	Hilary Bierman F 10:00am - 11:50am Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab

BSCI456 **Advanced Cellular Neuroscience**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI353 or NEUR306. Recommended: Minimum grade of C- in BSCI440 or another upper-level neuroscience course. Restriction: Permission of CMNS-Biology department. Jointly offered with: NACS644. Credit only granted for: BSCI339X, BSCI456, or NACS644. Formerly: BSCI339X.

Readings and discussion in cellular and molecular mechanisms underlying synaptic structure/function relationships, synaptic potentiation/depression, dendritic integration, homeostatic plasticity, and nervous system development including neurogenesis, axon guidance, synaptogenesis, and activity-dependent development among other topics.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB (Cell Biology, Development, Physiology category) and PHNB.

0101	Colenso Speer MW 10:00am - 12:00pm	Seats (Total: 5) BPS 2249

BSCI462 **Population Ecology**

Prerequisite: MATH130, MATH136, or MATH140; and BSCI361.

Theory of population growth and regulation, life tables, and theory of competition and predation, evolution in ecological settings, community structure and dynamics.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Bill Fagan TuTh 9:30am - 10:45am	Seats (Total: 35) BPS 1238

BSCI473 **Marine Ecology**

Prerequisite: BSCI207.

Courses in evolution and animal behavior are strongly recommended. A detailed analysis of the evolutionary ecology of marine invertebrates; emphasis on testing of theories and on current literature.

(Sponsoring Dept: BIOL). Acceptable toward Biological Sciences specialization areas: ECEV and GENB.

0101	Sarah Lee MW 2:00pm - 3:15pm	Seats (Total: 45) BPS 0283

BSCI476 **Evolutionary Genomics**

Prerequisite: Minimum grade of C- in BSCI222. Recommended: BSCI370. Credit only granted for: BSCI476 or BIOL708C.

Application of genomics to understanding evolutionary processes, including genome evolution, organismal evolution, genomic diversity across the tree of life, human evolution and disease. Relevant concepts of evolutionary genetics and genome biology will be covered.

0101	Carlos Machado	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PLS 1115	

BSCI477 **Ecology and Evolution of Infectious Disease**

Prerequisite: C- or better in either BSCI370 or BSCI361 and either MATH136 or MATH140. Credit only granted for: BSCI477 or BIOL708D.

Parasites are a ubiquitous feature of ecological communities, and can strongly impact population growth, extinction risk, community structure and biodiversity, as well as pose serious risks to human health and food security. This course will cover basic principles of disease ecology, including; the diversity of parasitic organisms and transmission modes, host and pathogen traits for defense and infection, mathematical models of disease spread, the impacts of disease at different ecological scales, and host-parasite co-evolution. In the latter half of the course we will apply these basic concepts to current real-world problems in disease ecology including emerging infectious diseases in humans, wildlife and agriculture. We will use examples from plants, animals and humans to about an equal degree. This course will have a strong quantitative focus, and completion of the math series is recommended.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavioral & Organismal category).

0101	Emily Bruns	Seats (Total: 36)	
	TuTh 2:00pm - 3:15pm	ESJ 1309	

BSCI480 **Arthropod Form and Function**

Prerequisite: Permission of CMNS-Entomology (AGNR).

Survey of the morphological, systematic and physiological diversity of the phylum Arthropoda.

0101	Jeffrey Shultz	Seats (Total: 24)	
	MWF 11:00am - 11:50am	PLS 1111	
	F 2:00pm - 5:00pm	PLS 1161	Lab

BSCV CIVICUS Spring 2024

BSCV182 **Civicus and Service-Learning**

Prerequisite: BSCV191. Restriction: Must be in the Civicus program.

Students will examine domestic societal issues and their national, regional, and local dimensions from political, economic, and policy perspectives. Students will work with local direct service non-profit organizations.

0101	Julie Randolph M 3:00pm - 4:20pm	Seats (Total: 26) SOM 0101	
0201	Julie Randolph M 4:30pm - 5:50pm	Seats (Total: 26) SOM 0101	

BSCV302 **Civicus Capstone**

(Perm req)

Prerequisite: BSCV301. Restriction: Sophomore standing or higher. Must be in the CIVICUS Program.

Capstone course required for CIVICUS citation. Through a supervised internship, students gain hands-on experience in an area related to civic engagement, which gives students authentic experiences that help them develop hard and soft skills to support their community engagement efforts and their work toward social good.

By permission of instructor.

0101	Korey Rothman W 6:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 25) SOM 0101 ONLINE	 Discussion
0201	Korey Rothman Tu 6:00pm - 6:50pm Class time/details on ELMs	Seats (Total: 25) SOM 0101 ONLINE	 Discussion

BSCV309 **Civicus Seminar**

(Perm req)

Review and analysis of contemporary social issues.

Contact department for information to register for this course.

BSCV309C **Civicus Seminar; Diversity and Inclusion**

(Perm req)

Review and analysis of contemporary social issues.

An exploration of equity and inclusion in higher education community service learning.

Contact department for information to register for this course.

BSGC Global Communities Spring 2024

BSGC399 **Topical Investigations in Global Communities**

Variable from 1-3 credits and repeatable up to 6 if content varies.

Restriction: Must be in Global Communities Living-Learning Program.

0101	Sarah Croco	Seats (Total: 5)
	Contact instructor or department for details.	

BSOS Behavioral and Social Sciences Spring 2024

BSOS188B **Selected Topics in the Behavioral and Social Sciences; Introduction to Data Management**

Introductory selected topics course dealing with interdisciplinary issues related to the social sciences.

This course serves as an introduction to computers, data management, and popular analytics software (e.g., R, Excel) and is ideal for students who have minimal training in computers and software. You will learn best practices for file management and ways read in data, clean data sets, and perform other vital functions (mainly in Excel). You will develop fundamental skills that will ease your transition into future coursework in data science or analytics.

0101	Jacob Coutts	Seats (Total: 55)
	Meets February 8, 2024 - April 4, 2024	
	Class time/details on ELMs	ONLINE

BSOS233 **Data Science for the Social Sciences**

Prerequisite: MATH 107 (or higher) or STAT 100. Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

Please contact gdenbow@umd.edu for permission to register.

0101	Hansol Kwak, Jacob Coutts	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 0215	
	F 10:00am - 11:50am	ESJ B0322	Lab
0102	Jacob Coutts, Hansol Kwak	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	ESJ 0215	
	F 12:00pm - 1:50pm	WDS 0104	Lab

BSOS248A **Leadership Seminar I; Leadership Seminar I Ambassadors**

(Perm req)

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248P **Leadership Seminar I; Peer Mentors**

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS288I **Special Topics in Behavioral and Social Sciences; Internship Practicum in the Social Sciences**

(Perm req)

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

Contact department for information to register for this course.

BSOS326 **Python Programming for the Social Sciences**

Prerequisite: Minimum grade of C- in INST126 or BSOS233. Restriction: Restricted to students in the Social Data Science major or by permission of the instructor.

Python has become the most powerful programming language in advanced statistics and data analytics. It includes expansive packages for data handling and processing, including the latest developments in machine learning, and offers Integrated Development Environments (IDE) for code development, testing, debugging, and graphical representation. This course offers a thorough introduction to Python and those packages that are fundamental to data processing and analysis.

If you have any questions please contact gdenbow@umd.edu.

0101	Francis Lavoe, Brian Kim TuTh 3:30pm - 4:45pm	Seats (Total: 40) TWS 1310

BSOS355 **Social Sciences Internship Practicum**

(Perm req)

Restriction: Must have earned a minimum of 60 credits; and minimum cumulative GPA of 2.5; and must have completed at least 1 semester at UMD. Credit only granted for: BSOS388I or BSOS355. Formerly: BSOS388I.

BSOS 355 is an internship course open to all majors. It will enable students to articulate and apply the scholarship from the discipline related to their specific internship placement into a real-work environment.

0101	Liza Lebrun Contact instructor or department for details.	Seats (Total: 40)

BSOS358A **Leadership Practicum II; Ambassadors**

(Perm req)

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358D **Leadership Practicum II; Leadership Practicum II DSAC**

(Perm req)

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358L **Leadership Practicum II; DSAC Officers**

(Perm req)

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358P **Leadership Practicum II; Peer Mentors**

(Perm req)

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS361 **Academic and Career Planning for Transfer Students in the College of Behavioral and Social Sciences**

Restriction: Must be a first-semester transfer student in a College of Behavioral and Social Sciences major. Additional information: Intended for first semester transfer students in BSOS majors.

Students will utilize the resources of the Feller Center for Academic and Career Planning and TerrapinSTRONG to explore how their individual social identities and strengths contribute to building strong communities in personal, academic, and professional career spaces.

0101	TC Lloyd W 4:00pm - 5:30pm	Seats (Total: 30) TYD 1102
0102	TC Lloyd, Felecia Greer M 3:00pm - 4:30pm	Seats (Total: 30) TYD 1114

BSOS386 **Experiential Learning**

(Perm req)

Contact department for information to register for this course.

BSOS388E **Behavioral and Social Sciences Special Topics; CIDCM Minor Practicum**

(Perm req)

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS388Q **Behavioral and Social Sciences Special Topics; CESAR Directed Study**

(Perm req)

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS399 **Directed Study in Behavioral and Social Sciences**

(Perm req)

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399C **Directed Study in Behavioral and Social Sciences; Civicus Undergraduate Teaching Assistant Directed Study**

(Perm req)

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399Q **Directed Study in Behavioral and Social Sciences; CESAR**

(Perm req)

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS448C **Teaching Assistant Practicum; Civicus**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448I **Teaching Assistant Practicum; Internship**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448M **Teaching Assistant Practicum**

Supervised practicum for teaching assistants for BSOS/UNIV courses.

0101	Brandee Pettus	Seats (Total: 12)
	Contact instructor or department for details.	

BSOS448T **Teaching Assistant Practicum; Teaching Assistant Practicum (UNIV)**

(Perm req)

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSST Terrorism Studies Spring 2024

BSST331 **Innovations in Counterterrorism**

Restriction: Must be in the Terrorism Studies minor program.

Explore the manners in which states respond to terrorist incidents and the threat of terrorism through counterterrorism approaches and strategies. We will examine counterterrorism responses from law enforcement, military, and the intelligence community. This will include discussions about policy decisions made in response to both terrorist attacks and the threat of terrorism. Counterterrorism strategies this course will cover include deterrence, interdiction, and legal efforts to combat terrorism, including terrorist financing and online recruitment. The course is divided into four general parts. First, we will provide an overview of government counterterrorism options and review key concepts. Second, we will examine law enforcement responses to terrorism including efforts to counter cyberterrorism, social media recruitment, and terrorist financing online. Third, we will focus on military responses to attacks conducted by terrorist groups, including deterrence strategies, targeted strikes, and covert operations. Last, we will review the challenges and complexities of counterterrorism approaches, including the ethical, moral, and legal dilemmas.

0101	Thomas Guarrieri	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	ESJ 1309
	Restricted to students in the Global Terrorism Studies Minor. For inquiries email education-start@umd.edu.	

BSST338R **Special Topics in Terrorism Studies; Far-Right Extremism: Violent Ideologies and Actions**

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

This course will introduce students to the ideologies, organizing patterns, and actions within far-right extremism. This will include a focus on movements within white supremacism, anti-government extremism, male supremacy, homophobia, and anti-immigrant extremism. Using as examples specific violent extremists and groups on the far right, we will study key theories explaining extremist radicalization, recruitment, engagement, and mobilization.

0101	Amy Pate TuTh 3:30pm - 4:45pm	Seats (Total: 20) HJP 2242
0201	Amy Pate TuTh 3:30pm - 4:45pm *Restricted to students in the Global Terrorism Minor.*	Seats (Total: 20) HJP 2242

BSST377 **Applying Theory to the Practice of Countering Terrorism**

Recommended: BSST330. Restriction: Restricted to students enrolled in the Global Terrorism Minor (#BS07). Credit only granted for: BSST327, BSST377, or BSST399K. Formerly: BSST327. Additional information: It is recommended that this course be taken in the final semester in the minor program.

Focuses on current events related to terrorism and counterterrorism, as they are discussed in mass media, and the implications of those current events on the ethical and professional conduct of the counterterrorism community. Through a discussion-based seminar, students will bring current, terrorism-related events to classroom discussion, where they will consider the media-framed current events in relation to academic research. Students will be continually challenged to draw connections between terrorism-related events in the news and relevant academic research. Furthermore, this class will use vignettes based in current events to present students with real-world ethical dilemmas that those in the professional counterterrorism community and broader national security community have to confront.

For inquiries, email education-start@umd.edu.

0101	Jason Blazakis F 1:00pm - 2:50pm	Seats (Total: 35) HJP 2217

BSST386 **Experiential Learning in Terrorism Studies**

(Perm req)

This course will supplement student's experiential learning experience, or internship in the field of terrorism studies and homeland security with guided reflection on their experiences.

0101	Liberty Day Class time/details on ELMs	Seats (Total: 25) ONLINE

BSST389 **Internship in Terrorism Studies**

(Perm req)

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Contact department for information to register for this course.

BSST631 **Societal Impacts of and Responses to Terrorism**

Credit only granted for: BSOS631 or BSST631. Formerly: BSOS631.

Explores the manners in which a variety of different actors respond to both terrorist incidents and the threat of terrorism. Examines local responses to terrorist incidents; local impacts of terrorism including effects on individual and group attitudes and behaviors; policy decisions made in response to both terrorist attacks and the threat of terrorism; terrorism prevention, deterrence, interdiction, and mitigation efforts; and individual and community recovery from terrorist attacks.

PWT1	Michael Egnoto	Seats (Total: 30)
	W 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST633 **Research Methods in Terrorism and Counterterrorism**

Credit only granted for: BSOS633 or BSST633. Formerly: BSOS633.

Provides students with the opportunity to conduct original research, while exposing them to analytical tools relevant to the study of terrorism. Students will work with a range of data sources on domestic and international terrorism, and will be tasked with using data to test hypotheses related to the causes, behaviors, and/ or impacts of terrorism.

PWT1	Marcus Boyd	Seats (Total: 30)
	M 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST636 **Quantitative Research Methods in Terrorism Studies**

Introduction to probability, statistics and data analysis, particularly with respect to how they are used in the study of terrorism. Students will learn fundamental principles of probability and statistical inference, how to summarize data and make statistical inferences, and how to manipulate and analyze data in a statistical software package (Stata) that is widely used in the discipline. The course provides a foundation in quantitative analysis that will enable students to critically evaluate extant quantitative research and manipulate their own data. It will also prepare interested students for more advanced statistics training.

PWT1	Thomas Guarrieri	Seats (Total: 30)
	W 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST643 **Great Powers & Near-Peer Competition**

Focused on the emerging threats posed by state actors termed as "near-peers," including topics germane to near-peer competitors, most notably China, Russia, and Iran, but will cover other state actors as necessary. The course also investigates the past, present, and future of the most powerful states in the international system, the great powers, and how they compete, and cooperate in international relations. By examining the various aspects of the great powers and near-peer competitors, students will learn how geography, politics, economics, technology, and ideology play a role in global competition.

PWT1	Margaret Smith	Seats (Total: 30)
	M 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST645 **Non-state Actors Threats and Responses**

The Non-State Actor. Running the gamut from Freedom fighters to Corporatized extortionists, NSAs play a pivotal role in the modern fields of combat. Some maintain loose state-level ties with high deniability, others rage against their domestic governments and facilitate foreign influence, but all present a modern adversary that Western Allies and Governments need to anticipate, track, and overcome. This course will provide an overview of the types of non-state actors that influence state actions. The course will examine the economic, political, and social costs of the proliferation of non-state actors globally. While the course will discuss terrorist groups, the main focus of the course will be on actors such as militant groups, insurgent groups, drug cartels, and illicit financial actors.

PWT1	Michael Egnoto	Seats (Total: 30)
	Tu 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST650 **Foundations of Insider Risk Management & Mitigation**

The risks posed by trusted insiders to organizations in both the public and private sector are well documented. Past compromises of national security information have provided sensitive information to US adversaries; theft or compromise of proprietary data and intellectual property has impacted businesses large and small; and, incidents of workplace violence perpetrated by insiders are on the rise. This course provides context for the counter insider threat mission and explores multi-disciplinary insider risk management concepts. The course addresses matters of policy, political and socio-economic impacts, psychological factors, and gives special consideration to issues of cyber insider threat, privacy and civil liberties, kinetic violence, and related social and behavioral science research.

PWT1	Steve Sin	Seats (Total: 30)
	Th 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST697 **Capstone**

(Perm req)

Restriction: Students must be currently enrolled in their final semester of the MPTS program and have completed a minimum of 27 program credits.

The capstone course allows MPS students the ability to take what they have learned throughout their coursework and apply theories, methods, analysis, and policy in the form of a final project. The project can originate from work experience or the student's interests. Projects will be developed in conjunction with a member of the graduate faculty who will oversee the student's progress. By the end of the semester, each student is expected to have completed their individual project. The project should further the student's intellectual and career goals and can take the form of practical analysis, policy, or a more academic approach. Students will present their capstone project in written form and will also be required to present their research via an online colloquium. Students are expected to meet with a capstone advisor at least once a week and will devote considerable time developing the project individually.

PWT1	Thomas Guarrieri	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

BSST699 **Independent Study in Terrorism Studies**

An independent study course for students in the Global Terrorism Minor program.

Contact department for information to register for this course.

BUAC Accounting and Information Assurance Spring 2024

BUAC706 **Business Ethics for Accountants and Auditors**

(Perm req)

Restriction: Must be in Business and Management (Master's) program. Credit only granted for: BUAC765 or BUAC706. Formerly: BUAC765.

Considers all facets of business ethics issues within an accounting and auditing context. Ethical theory, corporate social responsibility, and individual decision-making are considered. Some of the applied topics that may be covered in this course include, but are not limited to, intellectual property issues, corporate downsizing, outsourcing, global ethics, crises management, and employment ethics.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 12:00pm - 1:50pm	VMH 1333

BUAC714 **Forensic Accounting/Auditing**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC792 or BUAC714. Formerly: BUAC792.

Provides a theoretical background and practical application of fraud examinations and corporate investigations. Fraud prevention, detection, investigation, and related matters such as courtroom procedures will be included. Also considered are topics such as FCPA and securities fraud. A wide variety of teaching tools are used.

0501	Ariel Ramirez, David Hilton	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	MW 6:00pm - 7:50pm	VMH 1511

BUAC732 **Intermediate Accounting II**

(Perm req)

Prerequisite: BUAC731. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758M or BUAC732. Formerly: BUAC758M.

Continuing the study of accounting information covering accounting principles found in US GAAP and IFRS as they apply to cash and receivables, inventory valuation, acquisition and disposition of plant, property and equipment, depreciation, impairments and depletion, intangible assets, current liabilities and contingencies, long-term liabilities, and stockholders equity.

0501	Stephen Brown	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	MW 2:00pm - 3:50pm	VMH 2505

BUAC735 **External Auditing**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758O or BUAC735. Formerly: BUAC758O.

The study of the independent accountants attest function, generally accepted auditing standards, compliance and substantive tests, and auditor reports and opinions. The course explores audit planning and the role of internal controls and their effect on the auditability of financial statements. The course includes the study of various audit concepts, including how auditors develop an audit strategy, determine materiality in various contexts, set the acceptable level of audit risk, assess control and inherent risk and set detection risk, develop audit objectives, accumulate audit evidence and prepare workpapers, and audit firm quality control.

0501	James McKinney	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 4:00pm - 5:50pm	VMH 2511

BUAC742 **Accounting Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

The application of data analytics techniques in accounting. Topics such as identifying questions that can be answered by data; data extraction, cleaning and preparation; data visualization; audit data analytics; generating key performance indicators; financial statement analytics; and tax analytics will be covered. Students will gain hands-on experience with various data analytics software. By the end of this course, the students should have a basic understanding on how accounting analytics can help enhance the effectiveness of management control systems and improve the quality and relevance of financial reporting, as well as its implications in auditing and fraud detection.

0501	Lei Zhou	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 1412

BUAC744 **Valuation Measurement, Reporting, and Auditing for Accountants and Auditors**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

An introduction to valuation for financial reporting ("fair value"), fair value reporting, and auditing fair value measurements. The number and complexity of financial reporting standards that require or allow assets and liabilities to be reported at fair value has increased substantially in recent years. The technical accounting standards that include fair value are complex in and of themselves, and the valuation measurements add substantially to the complexity. Further complexity is added to the dynamic because the audit firm is prohibited by the AICPA's independence rules from performing the valuation or providing significant assistance in technical accounting or the fair value measurement. Independent valuation/appraisal specialists are frequently preferred or required by the reporting company and/or the audit firm. From the perspective of the reporting company, this frequently results in complex and costly compliance, and from the auditor's perspective, a complex and high-risk area of the audit.

0501	Brent Solomon	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	MW 12:00pm - 1:50pm	VMH 1520

BUAC752 **Internal Auditing I: Assurance and Consulting Services**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUAC786 or BUAC752. Formerly: BUAC786.

Provides students with an overview and basic understanding of internal auditing. Internal audit's role in internal control, risk management, business processes and risks, and Sarbanes-Oxley, Section 404 compliance efforts compliance efforts are considered. Internal auditing is presented as an integral part of effective corporate governance. Examples of assurance and consulting activities undertaken by the internal audit function, as well as the sourcing strategy (i.e., full insourcing, co-sourcing or full outsourcing models) are discussed. Students are introduced to internal control theory, test design concepts and internal auditing best practices.

0501	Elizabeth Folsom	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 6:00pm - 7:50pm	VMH 1333

BUAC758U **Special Topics in Accounting and Information Assurance; Advanced Accounting**

(Perm req)

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1336

BUAC759 **Independent Study in Accounting and Information Assurance**

(Perm req)

Independent study for masters students in accounting and information assurance.

Contact department for information to register for this course.

BUAC766 **Taxation of Not-for-Profit Entities**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758W or BUAC766. Formerly: BUAC758W.

An introduction to the theory and practice of taxation as applied in the nonprofit sector. The practice of taxation for nonprofits requires, inter alia, an understanding of the legal framework for these entities. Therefore, the course will devote significant time to understanding the legal environment and framework associated with nonprofits. The course goal is to enable students to become proficient in the major aspects of nonprofits that apply to the work of public accountants.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1336

BUAC767 **Tax IV: Real Estate Taxation**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758X or BUAC767. Formerly: BUAC758X.

Provides an in-depth examination of the tax provisions and opportunities for planning transactions that involve real estate investments and transactions. The course covers the tax implications of purchasing, holding, and selling real property. These include the determination of tax basis and the treatment of mortgage interest, property taxes, like-kind exchanges, involuntary conversions, sales and dispositions, qualifying property, and capital gains and losses. The various forms used for property transactions will be reviewed in detail.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 12:00pm - 1:50pm	VMH 2505

BUAC770 **Tax V: International Taxation**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758Y or BUAC770. Formerly: BUAC758Y.

An introduction to the theory and practice of international taxation. The objective of the course is to provide students with the basic tools to approach international tax topics from a US perspective. The course addresses the fundamentals of U.S. international taxation, but also offers insight into tax planning considerations. Both the U.S. activities of foreign taxpayers, as well as the foreign activities of U.S. taxpayers are explored.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 2:00pm - 3:50pm	VMH 2505

BUDT Decision and Information Technologies Spring 2024

BUDT702 **Database Management Systems**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Introduction to the conceptual, logical and physical design of relational database systems and their use in business environments. Topics include information modeling and optimization via normalization; Structured Query Language (SQL); Data Warehousing.

0504	Woei-jyh Lee	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1412

BUDT704 **Data Processing and Analysis in Python**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758X OR BUDT704. Formerly: BUDT758X.

An introduction to the Python programming language for the purpose of processing, analyzing, and visualizing data. In addition, students will be introduced to developing basic regression, optimization, and simulation models in Python, using highly popular packages. Course emphasis is on mastering basic Python functionality and developing intermediate to advanced skills in working with data, through instruction and active learning.

0504	Woei-jyh Lee	Seats (Total: 50)
	Meets January 24, 2024 - May 10, 2024	
	MW 8:00am - 9:15am	VMH 1505

BUDT723 **Business Process Analysis for IS**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Helps students gain a solid foundation in the concepts, processes, tools, and techniques needed in analyzing business processes and conducting information systems projects.

0501	Paul Shapiro **Meets January 24, 2024 - May 10, 2024** M 10:00am - 11:50am	Seats (Total: 0) VMH 1511
0502	Paul Shapiro **Meets January 24, 2024 - May 10, 2024** M 8:00am - 9:50am	Seats (Total: 0) VMH 1511
0503	Paul Shapiro **Meets January 24, 2024 - May 10, 2024** W 8:00am - 9:50am	Seats (Total: 0) VMH 1511
0504	Paul Shapiro **Meets January 24, 2024 - May 10, 2024** W 10:00am - 11:50am	Seats (Total: 0) VMH 1511

BUDT731 **Data, Models, and Decisions Using R**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0504	Sujin Kim **Meets March 25, 2024 - May 10, 2024** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1333

BUDT733 **Data Mining and Predictive Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

With vast quantities of data being generated, including new types of data such as web traffic, social network data, and reviews and comments on websites, "big data" and "analytics" are important topics. Data, when used correctly, can create a competitive edge for firms. Advances in computing hardware and algorithms have improved the quality of predictions and effectiveness of predictive business applications. Expertise in working with data, and deep knowledge of data mining/machine learning methods, is a sought-after skill. This course introduces key tools and techniques of data mining: classification, prediction, cluster analysis, and text mining. The methods covered are linear and logistic regression, k-nearest neighbors, naive Bayes, classification and regression trees, ensemble methods, neural networks, k-Means and hierarchical clustering, and association rules. The course will focus on business applications, with examples from Marketing, Finance, Healthcare, and Operations.

0501	Jessica Clark **Meets January 24, 2024 - March 12, 2024** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1333
0502	Jessica Clark **Meets January 24, 2024 - March 12, 2024** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 1333
0503	Jessica Clark **Meets January 24, 2024 - March 12, 2024** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1333

BUDT737 **Enterprise Cloud Computing and Big Data**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Uses a learning-by-doing approach to understand key concepts behind Cloud Computing and Big Data , the strategic drivers of these technologies and the value propositions that they provide to industry. The course cover technologies within this ecosystem including Hadoop, AWS, Pig, Hive, Amazon Web Services and Spark. The focus is on creating awareness of the technologies, providing some level of familiarity with them through hands-on exercises and projects, and enabling strategic thinking around the use of these technologies in business.

0501	Bharti Motwani **Meets January 24, 2024 - March 12, 2024** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1333
0502	Bharti Motwani **Meets January 24, 2024 - March 12, 2024** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1333

0503	Bharti Motwani **Meets January 24, 2024 - March 12, 2024** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1333	

BUDT738 **Industry Seminar**

(Perm req)

This experiential course will be offered in the Fall and Spring Semester of the first year to provide students exposure to career paths, real-world technology challenges faced by business and how these challenges are overcome. UMD Smith alumni will host weekly interactive learning discussions.

0501	John Bono, Tejwansh Anand **Meets January 24, 2024 - May 10, 2024** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1524 VMH 1524	 Discussion
0502	John Bono, Tejwansh Anand **Meets January 24, 2024 - May 10, 2024** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1524 VMH 1524	 Discussion
0503	Tejwansh Anand, John Bono **Meets January 24, 2024 - May 10, 2024** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1524 VMH 1524	 Discussion
0504	Tejwansh Anand, John Bono **Meets January 24, 2024 - May 10, 2024** F 11:30am - 1:00pm F 1:00pm - 2:30pm	Seats (Total: 0) VMH 1524 VMH 1524	 Discussion

BUDT751 **Harnessing AI for Business**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Artificial Intelligence (AI) is penetrating our daily routines deeply and is revolutionizing almost every aspect of business. Firms are increasingly using technologies such as natural language processing, neural networks, and deep learning to generate deep insights. At the same time, AI algorithms are challenged by issues of bias, ethics, and transparency. This course aims to equip students with the essential knowledge of the current wave of AI. It uses a hands-on, learning-by-doing approach to understanding the concepts behind AI, the strategic drivers of these technologies and the value propositions that they provide to industries. The focus is on creating awareness of the technologies, allowing some level of familiarity with them through assignments, and enabling some strategic thinking around the use of these in business.

0501	Tejwansh Anand, James McCoy **Meets March 25, 2024 - May 10, 2024** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1333
0502	James McCoy, Tejwansh Anand **Meets March 25, 2024 - May 10, 2024** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1333
0503	Tejwansh Anand, James McCoy **Meets March 25, 2024 - May 10, 2024** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1333

BUDT753 **Blockchain Technologies and Business Applications**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Creates a strong business and technical foundation for Blockchain, starting with an in-depth discussion of the business inefficiencies that the Blockchain technology has the potential to address. This is followed by reviewing the computer science fundamentals related to cryptology, distributed computing, and peer-to-peer architectures that Blockchain systems rely on. The course then provides a comprehensive understanding of Bitcoin including its limitations, and the work that has been done to date to address these limitations. Alternate Blockchain implementations such as Ethereum and Hyperledger are discussed with a focus on smart contracts. The course will also cover potential business applications in Finance, Healthcare, Supply Chain, and Arts/Media/Entertainment. Students will be exposed to current research problems and research efforts in progress.

0501	James McCoy, Tejwansh Anand **Meets March 25, 2024 - May 10, 2024** TuTh 10:00am - 11:50am	Seats (Total: 60) VMH 1511
0502	Tejwansh Anand, James McCoy **Meets March 25, 2024 - May 10, 2024** TuTh 12:00pm - 1:50pm	Seats (Total: 60) VMH 1511

BUDT754 **IoT Applications for Business**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

The IoT is enabling the digitization and internet connectivity of most physical things. The focus of this course is to provide students an in-depth understanding of the technology components of the IoT architecture, infrastructure, data and analytics so that they are equipped to develop business applications using IoT that deliver business outcomes.

0501	David Loshin **Meets March 25, 2024 - May 10, 2024** TuTh 10:00am - 11:50am	Seats (Total: 37) VMH 2505
0502	David Loshin **Meets March 25, 2024 - May 10, 2024** TuTh 12:00pm - 1:50pm	Seats (Total: 37) VMH 2505

BUDT758D **Special Topics in Decision, Operations and Information Technologies; Data Visualization & Web Analytics**

(Perm req)

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Xiaojia Guo **Meets January 24, 2024 - May 10, 2024** TuTh 9:30am - 10:45am *MSBA only*	Seats (Total: 0) VMH 1330
0507	Xiaojia Guo **Meets January 24, 2024 - May 10, 2024** TuTh 11:00am - 12:15pm	Seats (Total: 0) VMH 1330

BUDT758J **Special Topics in Decision, Operations and Information Technologies; Enterprise Cloud Computing & Big Data**

(Perm req)

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Woei-jyh Lee **Meets January 24, 2024 - May 10, 2024** MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1330

0507	Woei-jyh Lee	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	TuTh 8:00am - 9:15am	VMH 1330

BUDT758T **Special Topics in Decision, Operations and Information Technologies; Data Mining and Predictive Analytics**

(Perm req)

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Eaman Jahani	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	MW 3:30pm - 4:45pm	VMH 1330
0507	Eaman Jahani	Seats (Total: 0)
	Meets January 24, 2024 - May 10, 2024	
	MW 5:00pm - 6:15pm	VMH 1330

BUDT758V **Special Topics in Decision, Operations and Information Technologies; Operations Analytics**

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytics students only.

0506	Zhi-Long Chen	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1412

BUDT758X **Special Topics in Decision, Operations and Information Technologies; Sustainability Analytics**

(Perm req)

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

Application Required. This course is intended for students who are interested in building an understanding of topics that are at the intersection of sustainability and analytics. This will be taught in a seminar format where the student's ability to work independently is assumed and classroom engagement is critical. We will build on foundational learnings from prior courses in the program.

0506	Suresh Acharya	Seats (Total: 30)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 4:00pm - 5:50pm	VMH 2511

BUDT758Z **Special Topics in Decision, Operations and Information Technologies; Computer Simulation for Business Applications**

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Melanie De Grano	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1511

BUDT759 **Independent Study in Decision and Information Technologies**

(Perm req)

Independent study for masters students in decision and information technologies.

Contact department for information to register for this course.

BUFN Finance Spring 2024

BUFN402 **Portfolio Management**

(Perm req)

Prerequisite: BUFN400.

The fundamentals of portfolio management, including asset allocation, investing strategies, and risk management. The class describes some of the main strategies used by hedge funds and provides methodologies to analyze them. The strategies are illustrated using real financial data, and students learn to apply tools for performance measurement, portfolio optimization (quadratic programming), factor models, predictive regression analysis, backtesting, and managing transaction costs.

For Computational Finance Notation students only.

0101	Seokwoo Lee	Seats (Total: 30)
	MW 2:00pm - 3:15pm	HJP 2217

BUFN403 **Capstone Computational Finance Projects**

(Perm req)

Prerequisite: BUFN400 and CMSC320.

This is a semester-long capstone project to be completed by student groups. The projects will range from academic research projects (co-mentored by a finance or computer science faculty member) or an industry focused project (co-mentored by an industry coach). Each project must address an interesting real world challenge faced by a researcher, an analyst or a financial regulator. The project would ideally use a real dataset. Teams can create their own datasets or re-purpose existing datasets. There will be credit given to teams who create or curate their own datasets. The project should apply methodology based in machine learning, information / data management, including NLP and text analytics. The project must include a visual analytics component so that the results from the project can be presented and explained to the user.

0101	Louiqa Raschid	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

BUFN670 **Financial Mathematics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Topics include elements from basic probability theory, distributions of stock returns, elementary stochastic calculus, Ito's Lemma, arbitrage pricing theory, and continuous time portfolio theory. Particular focus is on the financial applications of these mathematical concepts.

0505	Mark Loewenstein	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1511

BUFN710 **Financial Strategy for Corporations**

Prerequisite: BUFN610; or permission of BMGT-Robert H. Smith School of Business. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN751 or BUFN710. Formerly: BUFN751.

An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

0501	Pablo Slutzky	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	MW 12:00pm - 1:50pm	VMH 1520
0502	Pablo Slutzky	Seats (Total: 15)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:50pm	VMH 2511

BUFN712 **Financial Restructuring**

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN712 or BUFN752. Formerly: BUFN752.

Focuses on identifying ways to increase firm value through corporate restructuring. Specific topics include: mergers and tender offers, spin-offs, carve-outs, divestitures, takeover defense strategies, leveraged buy-outs, and international acquisitions. Additionally, the theory, practice and empirical evidence related to each of these topics will be covered. Emphasis will be placed on valuation analysis and strategic considerations.

0501	Richmond Mathews **Meets January 24, 2024 - March 12, 2024** MW 10:00am - 11:50am	Seats (Total: 50) VMH 1520

BUFN726 **Institutional Asset Management**

Prerequisite: BUFN610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN660, BUFN726, BUFN761 or BUFN773. Formerly: BUFN773.

Examines how money is managed by organizations such as university endowments, pension funds, mutual funds, hedge funds, and private equity funds. Involves a mixture of finance and economics and emphasizes the incentives professional money managers face within the context of the organizational structure in which they operate. Particular attention is paid to compensation structures and monitoring mechanisms.

0501	Albert Kyle **Meets January 24, 2024 - March 12, 2024** MW 2:00pm - 3:50pm	Seats (Total: 40) VMH 1333
0502	Albert Kyle **Meets January 24, 2024 - March 12, 2024** MW 12:00pm - 1:50pm	Seats (Total: 40) VMH 2505

BUFN730 **Advanced Financial Modeling and Equity Analysis**

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN760 or BUFN730. Formerly: BUFN760.

Provides in-depth analysis of public equities, with a focus on financial statement analysis, financial forecasting and ultimately valuation. Students will apply the primary valuation techniques used in industry to estimate market values for equities. Additionally, students learn how to stress test their financial models and interpret outcomes.

0501	Sarah Kroncke **Meets March 25, 2024 - May 10, 2024** TuTh 10:00am - 11:50am	Seats (Total: 53) VMH 1333

BUFN732 **Fixed Income Analysis**

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN732 or BUFN762. Formerly: BUFN762.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

0501	Haluk Unal	Seats (Total: 50)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 12:00pm - 1:50pm	VMH 1412

BUFN744 **Fixed Income Derivatives**

Prerequisite: BUFN610; and BUFN732. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN765 or BUFN744. Formerly: BUFN765.

Surveys fixed income assets and related securities such as Exchange-traded bond options; bonds with embedded options; floating rate notes; caps, collars, and floors; floating rate notes with embedded options. Also surveys advanced tools for interest-rate and fixed-income portfolio management, including the use of derivative securities, and the application of binomial trees for analysis of options, and a sound understanding of stochastic yield curves.

0501	Haluk Unal	Seats (Total: 40)
	Meets March 25, 2024 - May 10, 2024	
	M 6:25pm - 10:00pm	VMH 2505

BUFN745 **Financial Programming**

(Perm req)

Prerequisite: BUFN650. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN758E or BUFN745. Formerly: BUFN758E.

This course introduces basic and innovative statistical modelling methods for financial markets, and equips students with analytical and programming tools for modelling and analyzing financial data. Examples of applications include portfolio management and risk management.

0505	Xi He	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1511

BUFN758C **Special Topics in Finance; Climate Modeling and Analytics Tools**

Selected advanced topics in the various fields of graduate study in finance.

0501	Clifford Rossi	Seats (Total: 45)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1336

BUFN758G **Special Topics in Finance; Investment Fund Management: Mayer Fund**

(Perm req)

Selected advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN758J **Special Topics in Finance; Carbon Accounting and Financial Disclosures**

Selected advanced topics in the various fields of graduate study in finance.

0501	Richard McMahon	Seats (Total: 35)
	Meets January 24, 2024 - March 12, 2024	
	M 5:00pm - 7:00pm	VMH 2505
	Class time/details on ELMs	ONLINE

BUFN758L **Special Topics in Finance; Fintech:Business Disruptions, Innovations and Opportunities**

Selected advanced topics in the various fields of graduate study in finance.

0501	Terrence O'Brien	Seats (Total: 45)
	Meets March 25, 2024 - May 10, 2024	
	MW 10:00am - 11:50am	VMH 1333

BUFN758T **Special Topics in Finance; Portfolio Analysis, Investment Strategies and Climate**

Selected advanced topics in the various fields of graduate study in finance.

0501	Ruoke Yang, Russell Wermers	Seats (Total: 45)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1505

BUFN758X **Special Topics in Finance; Market Microstructure**

Selected advanced topics in the various fields of graduate study in finance.

0501	Thomas Ernst	Seats (Total: 40)
	Meets March 25, 2024 - May 10, 2024	
	MW 2:00pm - 3:50pm	VMH 1520

BUFN758Z **Special Topics in Finance; Global Equity Fund**

(Perm req)

Selected advanced topics in the various fields of graduate study in finance.

0506	Kenneth Fuller **Meets January 24, 2024 - May 10, 2024** W 6:25pm - 10:00pm	Seats (Total: 10) VMH 2509

BUFN759 **Independent Study in Finance**

(Perm req)

Independent study for Masters students in finance.

By Department Permission Only.

Contact department for information to register for this course.

BUFN768A **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768B **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768O **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768P **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768X **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768Y **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BULM Logistics, Business, and Public Policy Spring 2024

BULM731 **Technology Applications in Supply Chain Management**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

In this course, we introduce the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain an understanding of accounting, finance, production cost, scheduling, and the link between supply chain and overall financial performance.

0501	Hongyi Zhang **Meets January 24, 2024 - March 12, 2024** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 3522
0502	Hongyi Zhang **Meets January 24, 2024 - March 12, 2024** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 3522

BULM735 **Project Management in Dynamic Environments**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0501	Anand Anandalingam **Meets March 25, 2024 - May 10, 2024** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1520

BULM754 **Global Transportation Management**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758T or BULM754. Formerly: BULM758T.

Introduces transportation as a field of managerial and governmental responsibility and presents the features that make the transportation arena unique and, thus,worthy of advanced study. Each of the five modes of transportation, along with other forms of carriage, will be considered. In addition, the importance of freight transportation within supply chain management will be examined. Issues related to passenger transportation will also be addressed. Throughout the course, particular attention will be paid to the significant impact that transportation has on economic development and growth.

0501	Philip Evers	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1505

BULM758D **Special Topics in Logistics, Business and Public Policy; Buyer-Supplier Relation**

(Perm req)

Selected advanced topics in the various fields of graduate study in logistics, business and public policy.

0501	Jon Crocker	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	MW 12:00pm - 1:50pm	VMH 1511

BULM758N **Special Topics in Logistics, Business and Public Policy; Introduction to Supply Chain Sustainability**

(Perm req)

Selected advanced topics in the various fields of graduate study in logistics, business and public policy.

0501	Jon Crocker	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	MW 6:00pm - 7:50pm	VMH 1511

BULM759 **Independent Study in Logistics Management**

(Perm req)

Independent study for Masters students in Logistics Management.

Contact department for information to register for this course.

BUMK Marketing Spring 2024

BUMK744 **Marketing Research and Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758L or BUMK744. Formerly: BUMK758L.

Provides a review of primary data collection methods for marketing data. Students will learn how to design and implement effective confirmatory research. Both direct methods such as surveys and indirect methods such as experiments will be covered. In this hands-on course, students will design and conduct research with target customers, analyze the data, and then present their results to decision makers.

0501	Bruno Jacobs	Seats (Total: 38)
	Meets January 24, 2024 - May 10, 2024	
	MW 12:30pm - 1:45pm	VMH 1336
	For MS in Marketing Analytics students only.	

BUMK746 **Data Science for Customer Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758W or BUMK746. Formerly: BUMK758W.

An introduction to data science and thebasic concepts of database management. The course also provides an overview of the various sources of in house data that are available to many organizations. Students will learn how to work with click stream, scanner panel and social media data. Geo-demographic datasets will be discussed and explored, and techniques for data-fusion will receive ample attention.

0501	Liye Ma	Seats (Total: 50)
	Meets January 24, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:15pm	VMH 1330
	For MS in Marketing Analytics students only.	

BUMK747 **CRM Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUMK758R or BUMK747. Formerly: BUMK758R.

Customer Equity Management and Customer Relationship Marketing focuses on selective acquisition, development and retention of customers aided by developments in information technology and analytics - databases, online channels, social media, mobile technologies, and marketing analytics - with the objective of increasing a firm's customer equity (firm's value). This course will focus on the conceptual foundations of customer equity and relationship management, their strategic implications, and implementations in both B-2-B and B-2-C contexts, especially in the emerging era of big data. The course will provide insights into the role of measuring and managing customer equity and customer loyalty using online and offline media and channels. The objective of the course is to examine the strategic and analytical aspects in equal measure so that participants will have a deeper understanding of the power of customer equity and customer analytics, and how to put it to work effectively using data, big or small.

0501	Liye Ma	Seats (Total: 50)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 10:00am - 11:50am	VMH 1412

BUMK759 **Independent Study in Marketing**

(Perm req)

Independent study for Masters students in Marketing.

Contact department for information to register for this course.

BUMK766 **Digital Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758N or BUMK766. Formerly: BUMK758N.

Examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention is devoted to the tools and techniques unique to the electronic media.

0501	Michael Trusov	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 2505

BUMK770 **Retail Analytics**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758M or BUMK770. Formerly: BUMK758M.

Planning and implementing retail marketing strategies often involve sophisticated analytics. This course will teach the analytical tools needed to develop retail strategies. Both store and non-store (catalog, Internet) retailing are discussed. Also, students will learn how to evaluate the impact of environmental trends in the consumer market, competition, the economy and technology on retail strategy in the U.S. and global market.

0501	Jie Zhang	Seats (Total: 0)
	Meets March 25, 2024 - May 10, 2024	
	MW 2:00pm - 3:50pm	VMH 2505

BUMK776 **Action Learning Project**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758Q or BUMK776. Formerly: BUMK758Q.

Students analyze marketing data, report their findings and provide appropriate recommendations.

0501	Liye Ma	Seats (Total: 50)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 12:00pm - 1:50pm	VMH 1511
	For MS in Marketing Analytics students only.	

BUSI Part-Time MBA Program Spring 2024

BUSI600 **Fundamentals of Business Decision Making**

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business. Additional information: Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

Introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation.

In-person meeting dates are: 1/13 and 1/14.

BA01	Mary Beth Furst	Seats (Total: 70)
	Meets January 13, 2024 - February 5, 2024	
	SaSu 8:00am - 8:00pm	Location: TBA
	Contact instructor or department for details.	

BUSI610 **Introduction to Financial Accounting**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI610, BUAC602, BUFN602, or BMGT602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

BA01	Musa Subasi **Meets January 24, 2024 - March 12, 2024** M 6:25pm - 10:00pm	Seats (Total: 50) BA 104
DC01	Darlene Dennison **Meets January 24, 2024 - March 12, 2024** W 6:25pm - 10:00pm	Seats (Total: 50) DC C2
GS01	Musa Subasi **Meets January 24, 2024 - March 12, 2024** Tu 6:25pm - 10:00pm	Seats (Total: 50) BLD4 5308

BUSI621 **Digital Transformation in Business**

(Perm req)

Restriction: Must be in Business and Management (Master's); or permission of BMGT-Robert H Smith. Credit only granted for: BUSI621 or BUSO620.

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

BA01	Il-Horn Hann **Meets March 25, 2024 - May 10, 2024** M 6:25pm - 10:00pm	Seats (Total: 50) BA 104
DC01	Il-Horn Hann **Meets March 25, 2024 - May 10, 2024** W 6:25pm - 10:00pm	Seats (Total: 50) DC C2

GS01	Il-Horn Hann **Meets March 25, 2024 - May 10, 2024** Tu 6:25pm - 10:00pm	Seats (Total: 50) BLD4 5308

BUSI640 **Corporate Finance**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

Focuses on the valuation of the real assets of firms as well as the valuation of stocks and bonds, the primary financial assets in an economy. While details vary, the conceptual foundations of valuation boil down to three themes: time value of money, no-arbitrage, and systematic risk.

BA01	Michael Faulkender **Meets March 25, 2024 - May 10, 2024** W 6:25pm - 10:00pm	Seats (Total: 50) BA 104
DC01	Michael Faulkender **Meets March 25, 2024 - May 10, 2024** M 6:25pm - 10:00pm	Seats (Total: 50) DC C2
GS01	Oya Altinkilic **Meets March 25, 2024 - May 10, 2024** Th 6:25pm - 10:00pm	Seats (Total: 50) BLD4 5308

BUSI683 **The Global Economic Environment**

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

BA01	Cristian Dezso **Meets January 24, 2024 - March 12, 2024** Tu 6:25pm - 10:00pm	Seats (Total: 35) BA 104
DC01	Cristian Dezso **Meets January 24, 2024 - March 12, 2024** W 6:25pm - 10:00pm	Seats (Total: 45) DC C1

GS01	Cristian Dezso **Meets January 24, 2024 - March 12, 2024** Th 6:25pm - 10:00pm	Seats (Total: 40) BLD4 5308

BUSI690 **Strategic Management**

(Perm req)

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI690 or BMGT614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

BA01	Evan Starr **Meets January 24, 2024 - March 12, 2024** W 6:25pm - 10:00pm	Seats (Total: 50) BA 104
DC01	Paulo Prochno **Meets January 24, 2024 - March 12, 2024** M 6:25pm - 10:00pm	Seats (Total: 50) DC C2
GS01	Paulo Prochno **Meets January 24, 2024 - March 12, 2024** Th 6:25pm - 10:00pm	Seats (Total: 50) BLD4 5321

BUSI718A **Special Topics in Business; Foundations of AI**

Selected advanced topics in the various fields of graduate study in business.

This course section meets in a synchronous hybrid format with some students attending exclusively in-person and others attending exclusively online.

DC01	Balaji Padmanabhan **Meets January 24, 2024 - March 12, 2024** Tu 6:25pm - 10:00pm Class time/details on ELMs	Seats (Total: 45) DC C3 ONLINE

BUSI718K **Special Topics in Business; Legal Environment of Sustainability**

Selected advanced topics in the various fields of graduate study in business.

This course section meets in a synchronous hybrid format with some students attending exclusively in-person and others attending exclusively online.

DC01	Jon Crocker	Seats (Total: 40)
	Meets March 25, 2024 - May 10, 2024	
	Tu 6:25pm - 10:00pm	DC C3

BUSI721 **Creativity for Business Leaders and Entrepreneurs**

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Examines the concept of creativity as it applies in today's and tomorrow's complex business environment. An overview of the cognitive foundations of creativity, examines many of the preconceived notions about creativity in business and discusses multiple ways in which creativity can help business leaders and entrepreneurs to succeed. Topics include creativity techniques for groups and individuals, creativity as a foundation to recognize business opportunities and develop innovative products and services, selecting ideas and making them stick, mental and organizational obstacles to creativity as well as an overview of electronic tools to increase creative capability.

BA01	Oliver Schlake	Seats (Total: 35)
	Meets March 25, 2024 - May 10, 2024	
	Th 6:25pm - 10:00pm	BA 104

BUSI731 **Managing Brands and Products**

Prerequisite: BUSI650. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert , H. Smith School of Business.

Brand names are valuable assets for firms. Effective brand management is critical to maintaining the long-term profitability of products and services. Topics include understanding brands from the customer's perspective, building brand equity, measuring brand equity, leveraging brand equity, managing brand portfolios and managing brands over time.

GS01	Mary Beth Furst	Seats (Total: 40)
	Meets March 25, 2024 - May 10, 2024	
	W 6:25pm - 10:00pm	BLD4 5321

BUSI740 **Valuation in Corporate Finance**

Prerequisite: BUSI640. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, discounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

WW01	Apoorva Javadekar	Seats (Total: 45)
	Meets January 24, 2024 - March 12, 2024	
	Th 6:25pm - 10:00pm	ONLINE

BUSI745 **Fixed Income Analysis**

Prerequisite: BUSI640. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

WW01	Haluk Unal	Seats (Total: 30)
	Meets March 25, 2024 - May 10, 2024	
	W 6:25pm - 10:00pm	ONLINE

BUSI758A **Special Topics in Business; Cyber/Enterprise Risks and Resilience Modeling**

Selected advanced topics in the various fields of graduate study in business.

For students in the Technology Management Certificate program only. In-person meetings on 4/20 and 4/27.

DC06	Charles Harry	Seats (Total: 45)
	Meets April 15, 2024 - April 28, 2024	
	Sa 9:00am - 5:00pm	DC C3

BUSI758B **Special Topics in Business; Leadership, Ethics & Technology**

Selected advanced topics in the various fields of graduate study in business.

For students in the Technology Management Certificate program only. In-person meetings on 5/4 and 5/18.

DC06	Anil Gupta	Seats (Total: 45)
	Meets April 29, 2024 - May 19, 2024	
	Sa 9:00am - 5:00pm	DC C3

BUSI758D **Special Topics in Business; Business Decoded**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WW01	Paulo Prochno	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

BUSI758E **Special Topics in Business; Business Decoded**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

WW01	Paulo Prochno	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

BUSI758F **Special Topics in Business; Investment Fund Management**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

DC01	Kenneth Fuller	Seats (Total: 10)
	Meets January 24, 2024 - May 10, 2024	
	W 6:25pm - 10:00pm	Location: TBA

BUSI758G **Special Topics in Business; Corporate Risk Management**

Selected advanced topics in the various fields of graduate study in business.

WW01	Clifford Rossi	Seats (Total: 45)
	Meets March 25, 2024 - May 10, 2024	
	M 6:25pm - 10:00pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSI758V **Special Topics in Business; Digital Promotion and Advertising**

Selected advanced topics in the various fields of graduate study in business.

This course section meets in a synchronous hybrid format with some students attending exclusively in-person and others attending exclusively online.

DC01	Pallassana Kannan	Seats (Total: 35)
	Meets January 24, 2024 - March 12, 2024	
	M 6:25pm - 10:00pm	DC C3
	This section will be taught in a hybrid format.	

BUSI758W **Special Topics in Business; Systems and Design Thinking**

Selected advanced topics in the various fields of graduate study in business.

WW01	Tejwansh Anand	Seats (Total: 45)
	Meets January 24, 2024 - March 12, 2024	
	M 6:25pm - 10:00pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSI758X **Special Topics in Business; AI and Business Strategy**

Selected advanced topics in the various fields of graduate study in business.

WW01	Anil Gupta	Seats (Total: 51)
	Meets March 25, 2024 - May 10, 2024	
	M 6:25pm - 10:00pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSI758Z **Special Topics in Business; Decision Modeling**

Selected advanced topics in the various fields of graduate study in business.

WW01	Sujin Kim	Seats (Total: 45)
	Meets March 25, 2024 - May 10, 2024	
	Th 6:25pm - 10:00pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSI759 **Independent Study in Business**

(Perm req)

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSI782 **Science and Technology Project Valuation**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

The application of financial management principles and techniques to science and technology investments and research and development projects. It will enable technology managers to estimate return on investment of R&D projects, value technology assets, quantify risk and make sound replacement and upgrade decisions for S&T projects. By the end of the course, students will be able to build financial models and make presentations to senior executives explaining the value creation potentially arising from investments in R&D, new product development, as well as infrastructure necessary to sustain the enterprise.

For students in the Technology Management Certificate program only. In-person meetings on 3/9, 3/23 and 4/6.

DC06	Oya Altinkilic	Seats (Total: 45)
	Meets March 4, 2024 - April 14, 2024	
	Sa 9:00am - 5:00pm	DC C3

BUSI784 **Systems Design, Development, Test and Evaluation**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Systems engineering approaches to the definition, design, development, implementation, integration, verification, and validation of successful systems. Particular focus will be placed on the critical collaboration needed between business leaders and IT leaders in the early stages of program definition and how to effectively leverage and assess business-driven enterprise, product, and program development. The course will cover contemporary product lifecycle phases and the systems engineering technical processes associated with research and product development organizations in industry and government. It will explore currently popular development methodologies such as incremental, spiral, evolutionary, lean, and agile and how these are driven by concept and requirements development, systems analysis and modeling, and system architecting and are measured by technology prototyping, research validation, technology testing, and program/product evaluation. The intent is exposure to the systems engineering processes and product/program lifecycle is to help technology management professionals align developmental efforts to business/mission strategy; help them to oversee, collaborate with, and evaluate technology development efforts; and help them navigate challenges of technology development and adoption and advance technologies more efficiently from concept to operational use.

For students in the Technology Management Certificate program only. In-person meetings on 1/27, 2/10 and 2/24.

DC06	Timothy Eveleigh	Seats (Total: 45)
	Meets January 22, 2024 - March 3, 2024	
	Sa 9:00am - 5:00pm	DC C3

BUSI788C **Introduction to Global Business Experience; Doing Business in Brazil**

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Paulo Prochno	Seats (Total: 10)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm Class time/details on ELMs	Location: TBA ONLINE

BUSI788K **Introduction to Global Business Experience; Doing Business in South Africa**

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Bennet Zelner	Seats (Total: 15)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm Class time/details on ELMs	Location: TBA ONLINE

BUSI788V **Introduction to Global Business Experience; Doing Business in Asia**

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Zhi-Long Chen	Seats (Total: 12)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm	VMH 1335

BUSI799 **Masters Thesis Research**

(Perm req)

Contact department for information to register for this course.

BUSM Full-Time MBA Program Spring 2024

BUSM614 **Strategic Management**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI690 or BUSM614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

0101	Paulo Prochno	Seats (Total: 55)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1412

BUSM624 **Operations Management**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634 or BUSM624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

0101	Zhi-Long Chen	Seats (Total: 42)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1505

BUSM626 **The Global Economic Environment**

(Perm req)

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI683 or BUSM626.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

0101	Wilbur Chung	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 2:00pm - 3:50pm	VMH 2511

BUSM701 **Marketing Research Methods**

Prerequisite: BUSM606; and BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK701 or BUSM701. Formerly: BUMK701.

The process of acquiring, classifying and interpreting primary and secondary marketing data needed for intelligent, profitable marketing decisions. Evaluation of the appropriateness of alternative methodologies, such as the inductive, deductive, survey, observational, and experimental. Recent developments in the systematic recording and use of internal and external data needed for marketing decisions.

Cross-listed with BDBA858D.Credit only granted for BUSM701 or BDBA858D

0101	Jason Choi	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	MW 2:00pm - 3:50pm	VMH 1511

BUSM702 **Consumer Behavior**

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK715 or BUSM702.

Analysis of customer decision-making and how marketing strategy can be used to influence those decisions. The framework is a buyer behavior model, in which concepts from psychology, sociology, and economics are applied to individual and organizational purchase decisions. Marketing strategies of leading firms in consumer products, technology, and services (including internet services) are analyzed using a variety of case study formats. Focus is consumer behavior; however, principles can also be applied to the decision-making of business.

0101	Rosellina Ferraro	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	MW 4:00pm - 5:50pm	VMH 1520

BUSM705 **Brand Management**

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK716 or BUSM705.

Brand names are valuable assets for firms. Effective brand management is critical to maintaining the long-term profitability of products and services. Topics include understanding brands from the customer's perspective, building brand equity, measuring brand equity, leveraging brand equity, managing brand portfolios and managing brands over time.

Cross-listed with BDBA858E. Credit only granted for BUSM7051 or BDBA858E

0101	Mary Beth Furst	Seats (Total: 28)
	Meets March 25, 2024 - May 10, 2024	
	MW 2:00pm - 3:50pm	VMH 1511

BUSM708 **Independent Study in Business**

(Perm req)

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSM733 **Valuation in Corporate Finance**

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN750 or BUSM733.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, dicounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

0101	Apoorva Javadekar	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	MW 4:00pm - 5:50pm	VMH 1511

BUSM735 **Financial Strategy for Corporations**

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN751 or BUSM735.

An advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

0101	Pablo Slutzky	Seats (Total: 21)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:50pm	VMH 2511

BUSM738A **Investment Fund Management; Mayer Fund**

(Perm req)

Provides second-year Master in Business Administration students with the opportunity to apply the skills learned in finance classes to actual investment decisions through management of an investment fund.

0101	Sarah Kroncke	Seats (Total: 10)
	Meets January 24, 2024 - May 10, 2024	
	TuTh 12:00pm - 1:50pm	VMH 2509

BUSM750 **Project Management in Dynamic Environments**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI785 or BUSM750.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

0101	Paul Shapiro	Seats (Total: 35)
	Meets March 25, 2024 - May 10, 2024	
	MW 12:00pm - 1:50pm	VMH 2505

BUSM758A **Special Topics in Business; AI and Business Strategy**

Selected advanced topics in the various fields of graduate study in business.

0101	Balaji Padmanabhan	Seats (Total: 30)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 10:00am - 11:50am	VMH 1336

BUSM758I **Special Topics in Business; Advanced Financial Modeling and Equity Analysis**

Selected advanced topics in the various fields of graduate study in business.

0101	Sarah Kroncke	Seats (Total: 12)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 10:00am - 11:50am	VMH 1333

BUSM758M **Special Topics in Business; Entrepreneurship and New Ventures**

Selected advanced topics in the various fields of graduate study in business.

0101	Mike Hoffmeyer	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 1511

BUSM758O **Special Topics in Business; Navigating Organizational Networks**

Selected advanced topics in the various fields of graduate study in business.

0101	Sheetal Singh	Seats (Total: 25)
	Meets March 25, 2024 - May 10, 2024	
	MW 4:00pm - 5:50pm	VMH 1511

BUSM758Q **Special Topics in Business; Sustainability in Business and Management**

Selected advanced topics in the various fields of graduate study in business.

0101	Rachelle Sampson	Seats (Total: 35)
	Meets January 24, 2024 - March 12, 2024	
	MW 2:00pm - 3:50pm	VMH 3330H

BUSM758R **Special Topics in Business; Foundations of AI**

Selected advanced topics in the various fields of graduate study in business.

Cross-listed with BDBA808F Credit granted for BUSM758R and BDBA808F

0101	Balaji Padmanabhan	Seats (Total: 25)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 10:00am - 11:50am	VMH 1336

BUSM758S **Special Topics in Business; Investments**

Selected advanced topics in the various fields of graduate study in business.

0101	Kenneth Fuller	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	MW 12:00pm - 1:50pm	VMH 1511

BUSM758Z **Special Topics in Business; Integrative Capstone**

(Perm req)

Selected advanced topics in the various fields of graduate study in business.

0101	Nicole Coomber	Seats (Total: 42)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1333

BUSM761 **Data Mining and Predictive Analytics**

(Perm req)

Prerequisite: BUSM606. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT733 or BUSM761. Formerly: BUDT733.

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

0101	Kislaya Prasad	Seats (Total: 55)
	Meets January 24, 2024 - March 12, 2024	
	TuTh 4:00pm - 5:50pm	VMH 1412

BUSM762 **Decision Analytics**

Prerequisite: BUSM606. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT732 or BUSM762.

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

0101	Sujin Kim	Seats (Total: 35)
	Meets March 25, 2024 - May 10, 2024	
	MW 10:00am - 11:50am	VMH 2505

BUSM775 **Global Strategy**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO754 or BUSM775.

Focuses on the "strategic" and "organizational" questions that a company must address as it globalizes its footprint. Among the questions that will be addressed are: What are the potential benefits, costs, and risks associated with going abroad? What differentiates a "global" from a "multidomestic" industry? What are the sources of competitive advantage in a global context?

0101	Paulo Prochno	Seats (Total: 40)
	Meets March 25, 2024 - May 10, 2024	
	TuTh 2:00pm - 3:50pm	VMH 1505

BUSM788C **Global Business Experience; Doing Business in Brazil**

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Paulo Prochno	Seats (Total: 4)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm Contact instructor or department for details.	Location: TBA

BUSM788K **Global Business Experience; Doing Business in South Africa**

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Bennet Zelner	Seats (Total: 0)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm Contact instructor or department for details.	Location: TBA

BUSM788V **Global Business Experience; Doing Business in Asia**

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Zhi-Long Chen	Seats (Total: 2)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm	VMH 1335

BUSM798Q **Business Consulting; Foundations of Consulting**

Selected advanced topics in the various fields of graduate study in business.

0101	Nicole Coomber	Seats (Total: 23)
	Meets January 24, 2024 - March 12, 2024	
	MW 10:00am - 11:50am	VMH 1418

BUSO Online MBA Program Spring 2024

BUSO601 **Corporate Finance I**

Prerequisite: BUSO602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introductory course in corporate financial management. The course outlines the financial concepts and techniques used to evaluate corporate decisions. The topics include the time value of money, valuation of common securities, capital budgeting methods, and discounted cash flow. The objectives are to introduce the language and structure of finance and to develop the ability to analyze financial decisions.

SO11	Ceyed Baiju **Meets March 25, 2024 - May 10, 2024** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO12	Elinda Kiss **Meets March 25, 2024 - May 10, 2024** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO13	Elinda Kiss **Meets March 25, 2024 - May 10, 2024** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO14	Ceyed Baiju **Meets March 25, 2024 - May 10, 2024** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO602 **Financial Accounting**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA610 or BUSO602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

SO11	Progyan Basu **Meets January 24, 2024 - March 12, 2024** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO12	Progyan Basu **Meets January 24, 2024 - March 12, 2024** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

SO13	Bill Ford	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO14	Bill Ford	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	Tu 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO614 **Strategic Management**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI690, BUSM614 or BUSO614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

SO11	Melanie Cohen	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO12	Paulo Prochno	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	Tu 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE
SO13	Clarence Wesley	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	W 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO14	Clarence Wesley	Seats (Total: 30)
	Meets January 24, 2024 - March 12, 2024	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO620 **Strategic Information Systems**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSO620, BUSI621, BUSM621 or EMBA620.

Use of information technology to achieve competitive advantage, efficient operations, and effective decision making. Analysis of functions of information technology and its impact on competitive strategy and organizational operations.

SO11	Jui Ramaprasad **Meets March 25, 2024 - May 10, 2024** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE
SO12	Raymond Barber **Meets March 25, 2024 - May 10, 2024** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE
SO13	Raymond Barber **Meets March 25, 2024 - May 10, 2024** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE
SO14	Raymond Barber **Meets March 25, 2024 - May 10, 2024** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE

BUSO626 The Global Economic Environment

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI683, BUSM626 or BUSO626.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

SO31	Bennet Zelner **Meets January 24, 2024 - March 12, 2024** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 20) ONLINE ONLINE

SO32	Bennet Zelner **Meets January 24, 2024 - March 12, 2024** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE
SO33	Bennet Zelner **Meets January 24, 2024 - March 12, 2024** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 24) ONLINE ONLINE
SO34	Bennet Zelner **Meets January 24, 2024 - March 12, 2024** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 17) ONLINE ONLINE

BUSO700 **Fundamentals of Business**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation. Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

In-person meeting dates are: 1/13 and 1/14.

SO91	Mary Beth Furst **Meets January 13, 2024 - February 5, 2024** SaSu 8:00am - 8:00pm Contact instructor or department for details.	Seats (Total: 70) Location: TBA

BUSO701 **Integrative Business Capstone**

Prerequisite: Students must have completed a minimum of 48 credit hours. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This is an experiential course that involves an integrative business experience. This experience may be simulated through a software package or through content, speakers and events that are based in a realistic business setting. Students compete in teams. Each team makes decisions in areas such as human resources, compensation packages, geographic expansion through sales offices, debt versus equity financing, manufacturing and inventory management, marketing, including pricing, advertising and product design. The impact of each of these decisions flows through the three financial statements and results in financial outcomes and ratios that measure the success of each team. Additional metrics include stakeholders beyond investors such as employee morale, community engagement, and environmental impact. Students compete for financing and for customers. Multiple presentations are made by students during the simulation to explain their strategy, their tactics, and their planned investments.

SO92	Judy Frels **Meets May 18, 2024 - May 19, 2024** SaSu 8:00am - 8:00pm	Seats (Total: 30) Location: TBA

BUSO702 **Action Learning Project I**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

The objective of the Action Learning Project I and II is for teams to identify and solve business problems that currently exist in organizations and in the process, to provide significant value to organizations and their stakeholders. The experience of solving business problems will both enable students to apply knowledge learned in core courses and to develop the wisdom, skills, and problem-solving capabilities of team members. This course is designed to promote independent learning. Faculty members will offer mini-modules on key themes such as team dynamics, client relations and consulting protocols but their primary role will be to facilitate the ALP process and serve as consultants to the student teams.Selecting the right project and defining it unambiguously sets the stage for the rest of the ALP process improvement or problem solving effort, ultimately leading to a relevant, value added and well-received deliverable. Poor problem selection creates longer-term problems for both ALP teams and the sponsoring organization and can reduce or impede the quality of your learning experience. For this reason, we will lay the foundation for the final selection of projects during this term (a) soliciting ideas from all students, and (b) offering feedback to identify and nurture the most promising ideas.

SO31	Protiti Dastidar **Meets January 24, 2024 - May 10, 2024** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO32	Protiti Dastidar **Meets January 24, 2024 - May 10, 2024** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 23) ONLINE ONLINE

SO33	Neta Moye **Meets January 24, 2024 - May 10, 2024** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE
SO34	Neta Moye **Meets January 24, 2024 - May 10, 2024** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 22) ONLINE ONLINE

BUSO706 **Organizational Change**

Prerequisite: BUSM600; or BUSO600; or BUSI662; or EMBA656. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSO706 or BUSM755.

Develops the advanced knowledge and skills of MBA students who plan to work with organizations as change agents. Concrete and useful strategies, tools, and interventions for diagnosing organizational change situations, analyzing problems, and designing and implementing organizational change. Draws on literature from organizational behavior, human resource management and strategic management to identify models as prescriptions of change.

SO31	Sheetal Singh **Meets March 25, 2024 - May 10, 2024** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO32	Myeong-Gu Seo **Meets March 25, 2024 - May 10, 2024** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Myeong-Gu Seo **Meets March 25, 2024 - May 10, 2024** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO712 **Entrepreneurship**

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introduces students to tools and skills needed to create and grow a successful new venture. The course integrates research findings from a range of different practical and intellectual perspectives, including psychology, sociology, economics, strategic management, and history into practical, hands on lessons for an entrepreneur. Class projects teach skills to explore high-risk business ideas in inexpensive ways and allow students to experience the entrepreneurial environment.A startup is an organization formed to search for a repeatable and scalable business model (Steve Blank). Entrepreneurship is about pursuing hunches about solutions to customer problems and thereby creating value. Testing these hunches requires getting customers to evaluate solutions. It is difficult to attract resources (either human or financial) before it is known if the hunch is correct, but testing hunches requires resources. This course provides iterative tools to solve this chicken and egg problem. We will also focus on specific skill building exercises, such as pitching and networking.

SO31	Sheetal Singh **Meets January 24, 2024 - March 12, 2024** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO32	Azi Gera **Meets January 24, 2024 - March 12, 2024** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Azi Gera **Meets January 24, 2024 - March 12, 2024** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO733 **Data Mining and Predictive Analytics**

Prerequisite: BUSM606; or BUSO607; or BUSI630. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUDT733, BUSM761 or BUSO733.

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

SO51	Margret Bjarnadottir **Meets March 25, 2024 - May 10, 2024** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO740 **Customer Equity Management**

Prerequisite: BUSI650; or BUSM612; or BUSO612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK722, BUMK750 or BUSO740.

This course focuses on managing customers of a business, whether in B2B or B2C space, as a portfolio of equity. It provides an understanding of the current and future value of customers to the business. Topics include selective acquisition, development, and retention of customers using latest developments in information technology.

SO51	Pallassana Kannan	Seats (Total: 24)
	Meets March 25, 2024 - May 10, 2024	
	W 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
SO52	Pallassana Kannan	Seats (Total: 22)
	Meets March 25, 2024 - May 10, 2024	
	W 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO752 Innovative Solutions to Supply Chain Challenges

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This course is designed to provide you with practical challenges to implement innovative and effective actions to achieve the goalof enhanced supply chain operations. You will be challenged to function as a supply chain executive in charge of major decisions.The course is designed to be a mix of action-focused learning combined with some very recent and interesting examples of howcompanies are addressing their own supply chain challenges in innovative ways.

SO51	Martin Dresner	Seats (Total: 24)
	Meets March 25, 2024 - May 10, 2024	
	Th 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO758R Special Topics in Business; Commercial Bank Management

Selected advanced topics in the various fields of graduate study in business.

SO51	Clifford Rossi	Seats (Total: 24)
	Meets March 25, 2024 - May 10, 2024	
	W 7:00pm - 8:30pm	ONLINE

BUSO788C Business Consulting; Doing Business in Brazil

Selected advanced topics in the various fields of graduate study in business.

GX01	Paulo Prochno	Seats (Total: 2)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm Class time/details on ELMs	Location: TBA ONLINE

BUSO788K **Business Consulting; Doing Business in South Africa**

Selected advanced topics in the various fields of graduate study in business.

GX01	Bennet Zelner	Seats (Total: 2)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm Class time/details on ELMs	Location: TBA ONLINE

BUSO788V **Business Consulting; Doing Business in Asia**

Selected advanced topics in the various fields of graduate study in business.

GX01	Zhi-Long Chen	Seats (Total: 4)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm	VMH 1335

CBMG Cell Biology & Molecular Genetics Spring 2024

CBMG613 **Microbiomes in Health, Disease, and Application**

Investigation of microbiomes in human and animal health, disease, and industrial applications, with an emphasis on underlying functional mechanisms. No prior programming experience required.

0101	Brantley Hall	Seats (Total: 14)
	Meets January 24, 2024 - March 13, 2024	
	TuTh 4:00pm - 5:50pm	BRB 3101

CBMG688B **Special Topics in Cell Biology and Molecular Genetics; Responsible Conduct of Research for Advanced Scholars**

(Perm req)

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Restriction: permission of instructor. Responsible Conduct of Research, for individuals who have already completed at least one graduate course in RCR. Satisfies 4 year refresher requirement.

0101	Charles Delwiche	Seats (Total: 15)
	Meets January 24, 2024 - March 13, 2024	
	W 4:00pm - 6:00pm	BRB 3101

CBMG688G **Special Topics in Cell Biology and Molecular Genetics; Computational Structural Biology**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Brian Pierce	Seats (Total: 15)
	Meets March 14, 2024 - May 9, 2024	
	MW 4:00pm - 5:50pm	MCB 2119

CBMG688I **Special Topics in Cell Biology and Molecular Genetics; Genetic Analysis**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Stephen Mount	Seats (Total: 30)
	Meets March 14, 2024 - May 9, 2024	
	TuTh 4:00pm - 6:00pm	MCB 2119

CBMG688U **Special Topics in Cell Biology and Molecular Genetics; Rigor and Reproducibility in Research**

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Experimental design, vouchering and validation, perils and pitfalls in statistical analysis, data management and archiving, and effective publication. Qualifies for BISI professional development requirement.

0101	Charles Delwiche	Seats (Total: 15)
	Meets March 26, 2024 - May 8, 2024	
	W 4:00pm - 6:00pm	BRB 3101

CBMG699 **Special Problems in Cell Biology and Molecular Genetics**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG699A **Special Problems in Cell Biology and Molecular Genetics; Diversity, Equity, and Inclusion in the Biological Sciences**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Charles Delwiche	Seats (Total: 15)
	Tu 12:00pm - 1:00pm	BRB 3101

CBMG699C **Special Problems in Cell Biology and Molecular Genetics; Cell Biology**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Sougata Roy	Seats (Total: 8)
	TuTh 11:00am - 12:15pm	PLS 1140

CBMG699D **Special Problems in Cell Biology and Molecular Genetics; Molecular Genetics: Bioinformatics and Computation Biology**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	Stephen Mount	Seats (Total: 20)
	W 12:00pm - 1:00pm	BRB 1103

CBMG699W **Special Problems in Cell Biology and Molecular Genetics; Immunology**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser, Kenneth Frauwirth	Seats (Total: 7)	
	MW 12:00pm - 12:50pm	ESJ 1202	
	F 1:00pm - 1:50pm	EGR 2154	Discussion

CBMG699X **Special Problems in Cell Biology and Molecular Genetics; Host Pathogen Interactions**

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser	Seats (Total: 20)
	F 3:00pm - 4:30pm	BRB 3101

CBMG799 **Masters Thesis Research**

Master's Thesis Research in Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG898 **Pre-Candidacy Research**

Pre-candidacy Research.

Contact department for information to register for this course.

CBMG899 **Doctoral Dissertation Research**

(Perm req)

Doctoral Dissertation Research.

Contact department for information to register for this course.

CCJS100 **Introduction to Criminal Justice**

Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

0101	Justine Madoo MW 11:00am - 11:50am M 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 LEF 2166	Discussion
0102	Justine Madoo MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 30) SKN 0200 TLF 1101	Discussion
0103	Justine Madoo MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) SKN 0200 JMZ 0103	Discussion
0104	Justine Madoo MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 WDS 0104	Discussion
0105	Justine Madoo MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 30) SKN 0200 KEY 0100	Discussion
0106	Justine Madoo MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 30) SKN 0200 ESJ B0322	Discussion
0107	Justine Madoo MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 JMZ 1122	Discussion
0108	Justine Madoo MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 TYD 0111	Discussion
0201	Justine Madoo MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 30) SKN 0200 KEY 0100	Discussion

0202	Justine Madoo MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 30) SKN 0200 TLF 1103	Discussion
0203	Justine Madoo MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 ESJ B0322	Discussion
0204	Justine Madoo MW 10:00am - 10:50am M 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 KNI 1105	Discussion
0205	Justine Madoo MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) SKN 0200 TLF 1101	Discussion
0206	Justine Madoo MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) SKN 0200 KEY 0100	Discussion
0207	Justine Madoo MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 WDS 0104	Discussion
0208	Justine Madoo MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 HBK 0109	Discussion

CCJS105 **Introduction to Criminology**

Criminal behavior and the methods of its study; causation; typologies of criminal acts and offenders; punishment, correction and incapacitation; prevention of crime.

0101	Jessica Morabito MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 30) LEF 2205 TLF 1103	Discussion
0102	Jessica Morabito MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 JMZ 1224	Discussion

0103	Jessica Morabito MW 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 30) LEF 2205 TYD 0111	Discussion
0104	Jessica Morabito MW 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TWS 1107	Discussion
0105	Jessica Morabito MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 30) LEF 2205 TLF 1101	Discussion
0106	Jessica Morabito MW 12:00pm - 12:50pm W 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 WDS 1114	Discussion
0107	Jessica Morabito MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 ESJ B0322	Discussion
0108	Jessica Morabito MW 12:00pm - 12:50pm W 11:00am - 11:50am	Seats (Total: 30) LEF 2205 TLF 1103	Discussion
0201	Jessica Morabito MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 30) LEF 2205 TLF 1101	Discussion
0202	Jessica Morabito MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 ESJ B0322	Discussion
0203	Jessica Morabito MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 JMZ 1122	Discussion
0204	Jessica Morabito MW 10:00am - 10:50am M 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TYD 0111	Discussion

0205	Jessica Morabito MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) LEF 2205 KEY 0100	Discussion
0206	Jessica Morabito MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 JMZ 0103	Discussion
0207	Jessica Morabito MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 JMZ 1224	Discussion
0208	Jessica Morabito MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TYD 1118	Discussion

CCJS200 **Statistics for Criminology and Criminal Justice**

(Perm req)

Prerequisite: CCJS100 or CCJS105; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH135, MATH140). Restriction: Must be in Criminology and Criminal Justice program; or permission of BSOS-Criminology & Criminal Justice department.

Introduction to descriptive and inferential statistics, graphical techniques, and the computer analysis of criminology and criminal justice data. Basic procedures of hypothesis testing, correlation and regression analysis, and the analysis of continuous and binary dependent variables. Emphasis upon the examination of research problems and issues in criminology and criminal justice.

0101	Robert Brame TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 30) LEF 2205 KEY 0121	Discussion
0102	Robert Brame TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 KEY 0102	Discussion
0103	Robert Brame TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 JMZ 0103	Discussion

0104	Robert Brame TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 JMZ 1122	Discussion
0105	Robert Brame TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 30) LEF 2205 EDU 2119	Discussion
0106	Robert Brame TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 30) LEF 2205 BPS 1232	Discussion

CCJS225 **Responses to Violence**

What are the dimensions of violence in the United States and worldwide, and how has humanity responded to violence? Conflict is unfortunately resolved through violence in a number of settings. It ranges from interpersonal to international in its scope. This course investigates the strengths and weaknesses of a number of resolutions to reducing violence over the course of history using both state centered and informal control.

Contact department for information to register for this course.

CCJS230 **Criminal Law in Action**

(Perm req)

Prerequisite: CCJS100.

Law as one of the methods of social control. Criminal law: its nature, sources and types; theories and historical developments. Behavioral and legal aspects of criminal acts. Classification and analysis of selected criminal offenses.

0101	Cortney Fisher TuTh 3:30pm - 4:45pm	Seats (Total: 100) SQH 1120	
0201	Russell Hamill W 4:00pm - 6:30pm	Seats (Total: 100) ESJ 2204	

CCJS300 **Criminological and Criminal Justice Research Methods**

(Perm req)

Prerequisite: CCJS100 and CCJS105; and (PSYC200, CCJS200, ECON321, BMGT230, or SOCY201).

Introduction to the formulation of research questions covering crime and justice, research designs, data collection, and interpretation and reporting in criminological and justice-system settings.

0101	Brett Lacey MW 9:00am - 10:15am	Seats (Total: 60) TYD 0102
0201	Brett Lacey MW 10:30am - 11:45am	Seats (Total: 60) TYD 0102
0301	Alan Lehman TuTh 11:00am - 12:15pm	Seats (Total: 60) SQH 1119
0401	Alan Lehman TuTh 12:30pm - 1:45pm	Seats (Total: 60) TYD 0102
ESG1	Thomas Alexander M 12:30pm - 1:45pm Class time/details on ELMs *Restricted to students in the Criminology & Criminal Justice Program at USG.*	Seats (Total: 40) ONLINE ONLINE

CCJS318C **Special Topics in Criminology & Criminal Justice; Public Speaking for Criminal Justice Professionals**

(Perm req)

Special topics in various aspects of the field of criminology and criminal justice will be covered.

Prerequisites: CCJS100 and CCJS105 Restriction: Must be a major within the BSOS-Criminology & Criminal Justice and permission by the department.

0101	Thomas Mauriello M 2:00pm - 4:30pm	Seats (Total: 30) MMH 2401

CCJS318F **Special Topics in Criminology & Criminal Justice; Terrorism and Political Violence: Understanding Terrorism, Insurgency, and Civil Conflict**

Special topics in various aspects of the field of criminology and criminal justice will be covered.

ESG1	Steve Sin Th 9:30am - 12:00pm *Restricted to students in the Criminology & Criminal Justice Program at USG.*	Seats (Total: 40) BLD3 4220

CCJS318I **Special Topics in Criminology & Criminal Justice; Introduction to Cyber Security and Digital Investigations**

Special topics in various aspects of the field of criminology and criminal justice will be covered.

ESG1	John Conroy, Michael Yu W 2:00pm - 4:30pm Class time/details on ELMs	Seats (Total: 40) BLD3 4212 ONLINE	
	Restricted to students in the Criminology & Criminal Justice Program at USG. See instructor for Online dates		

CCJS320 **Introduction to Criminalistics**

(Perm req)

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in the detection, investigation and solution of crimes. Practical analysis of evidence in a crime laboratory, including fingerprints and other impressions, firearms ID and ballistics, hairs and fibers, document examination, and use of polygraph.

Students must pay a $53.00 lab fee.

0101	Thomas Mauriello Class time/details on ELMs M 10:00am - 12:00pm	Seats (Total: 24) ONLINE MMH 2401	Lab
0201	Danielle O'Neill Class time/details on ELMs Tu 3:30pm - 5:30pm	Seats (Total: 24) ONLINE MMH 2401	Lab
0301	Danielle O'Neill Class time/details on ELMs Tu 6:00pm - 8:00pm	Seats (Total: 24) ONLINE MMH 2401	Lab

CCJS325 **Slavery in the Twenty First Century: Combating Human Trafficking**

What is human trafficking and how do we stop it? An introduction to the trafficking of human beings in its historical, legal, economic, political and social contexts. Scope of the global problem, different forms of human trafficking, and regional trends and practices. Roles of government, the international community and individual actors. Strategies to combat trafficking.

0401	Brett Lacey TuTh 9:30am - 10:45am	Seats (Total: 60) SKN 0104

CCJS333 **Navigating Your Future: Transforming Your Degree into your Career**

Restriction: Must be in the Criminology and Criminal Justice major (22091 and 2209L); or must be in the and Criminal Justice minor (#BS14) with 30 or more credits. Credit only granted for: CCJS333 or CCJS498Q. Formerly: CCJS498Q.

Assists Criminology and Criminal Justice students in exploring and preparing for entering graduate school and/or the professional work world. Academic success and professional development in the criminal justice field will be emphasized. Specific topics covered in the course include graduate school options, the benefits of a social science degree, and careers in private industry, nonprofit organizations, and federal, state, and local agencies. Will also focus on job preparation skills including writing a resume, creating a cover letter, and preparing for an interview.

ESG1	Richard Harris Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) BLD3 4220 ONLINE
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS340 **Policing**

(Perm req)

Prerequisite: CCJS100.

Critical issues relating to policing. Topics include police discretion, role of police, use of force, misconduct, police research, administration, personnel, and etc.

0101	Michael Weller TuTh 3:30pm - 4:45pm	Seats (Total: 60) TWS 0320
0201	David Mitchell M 5:00pm - 7:30pm	Seats (Total: 60) TWS 1100

CCJS342 **Corrections**

(Perm req)

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department. Credit only granted for: CCJS342 or CCJS452.

Examination of the American correctional system. Identification of historical and contemporary themes, issues, and trends. Evaluation of correctional policies, practices and research.

0101	Lauren Porter TuTh 11:00am - 12:15pm	Seats (Total: 60) SKN 0104
0201	Jessica Morabito Class time/details on ELMs	Seats (Total: 60) ONLINE
0301	Selena Price MWF 9:00am - 9:50am	Seats (Total: 50) SQH 1117

ESG1	William Sollod M 3:30pm - 6:00pm	Seats (Total: 40) BLD3 3220
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS345 **Courts and Sentencing**

(Perm req)

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department.

Contemporary issues in the American court system such as prosecution, sentencing and punishment. Theoretical perspectives on courtroom decision-making integrated with empirical research. Courts and sentencing processes, including initial charging, pretrial detention and final sentencing outcomes. Innovations in courts and sentencing.

0101	Cortney Fisher TuTh 12:30pm - 1:45pm	Seats (Total: 75) SQH 1120
0201	Robert Stewart MW 3:30pm - 4:45pm	Seats (Total: 60) HJP 2242

CCJS358B **Special Topics in Study Abroad III; Criminology in Scandanavia**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS358G **Special Topics in Study Abroad III; History of the Mafia and Global Crime**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS359 **Field Training in Criminology and Corrections**

(Perm req)

Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

Prerequisites: CCJS 105 or CRIM 220; and CCJS 350 or CRIM 450; and permission of department. For majors only.

Contact department for information to register for this course.

CCJS360 **Victimology**

(Perm req)

Prerequisite: CCJS105.

Overview of the history and theory of victimology. Analysis of victimization patterns with special emphasis on types of victims and crimes. The interaction between victims of crime and the criminal justice system with respect to the role of the victim and the services offered to the victim.

0101	Cortney Fisher TuTh 2:00pm - 3:15pm	Seats (Total: 100) SQH 1120

CCJS370 **Race, Crime and Criminal Justice**

(Perm req)

Prerequisite: CCJS100.

Role and treatment of racial/ethnic minorities in the criminal justice system. Course will provide students with historical and theoretical framework for understanding this dynamic.

0101	Demar Lewis MW 2:00pm - 3:15pm	Seats (Total: 60) TYD 0102
0201	Demar Lewis MW 3:30pm - 4:45pm	Seats (Total: 60) TYD 0102

CCJS386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-Criminology & Criminal Justice department; and junior standing or higher.

Contact department for information to register for this course.

CCJS389H **Independent Research in Criminology and Criminal Justice**

(Perm req)

Independent Research for CCJS Departmental Honors students.

Contact department for information to register for this course.

CCJS398 **Law Enforcement Field Training**

(Perm req)

Supervised, structured and focused field training in law enforcement agencies.

Prerequisite: junior standing. For majors only.

Contact department for information to register for this course.

CCJS399 **Independent Study in Criminology and Criminal Justice**

(Perm req)

Integrated reading or research under direction and supervision of a faculty member.

Prerequisite: written consent of faculty under whose direction the study is to be performed, and at least twelve hours of CCJS credits.

Contact department for information to register for this course.

CCJS418D **Seminar in Criminology and Criminal Justice; Evolving Legal Issues**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS 100 and CCJS 230.

0101	David Salem W 6:00pm - 8:30pm	Seats (Total: 50) KEY 0103

CCJS418J **Seminar in Criminology and Criminal Justice; Immigration and Crime**

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

ESG1	Alan Drew Tu 9:30am - 12:00pm *Restricted to students in the Criminology & Criminal Justice Program at USG.*	Seats (Total: 40) BLD3 4215

CCJS418N **Seminar in Criminology and Criminal Justice; Causes and Consequences of Terrorism**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS 100, CCJS 105, and CCJS 300. Restriction: Permission of department.

0101	Gary LaFree M 4:00pm - 6:30pm	Seats (Total: 42) TYD 1132

CCJS418P **Seminar in Criminology and Criminal Justice; Marijuana, Law and Society**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100 and CCJS105.

0101	Alan Lehman TuTh 2:00pm - 3:15pm	Seats (Total: 50) TWS 1107

CCJS418Q **Seminar in Criminology and Criminal Justice; Crime and Place**

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

ESG1	Nicole Romeiser	Seats (Total: 40)
	M 9:30am - 12:00pm	BLD3 3220
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS418U **Seminar in Criminology and Criminal Justice; Seminar in Criminology and Criminal Justice: Community Corrections**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, and CCJS300

0101	Selena Price	Seats (Total: 50)
	MWF 12:00pm - 12:50pm	SQH 1117

CCJS418V **Seminar in Criminology and Criminal Justice; Seminar in Criminology and Criminal Justice: Offenders of Violent Crime**

(Perm req)

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, and CCJS300

0101	Selena Price	Seats (Total: 50)
	MWF 10:00am - 10:50am	SQH 1117

CCJS428B **Special Topics in Criminology and Criminal Justice; Forensic Pathology**

Topics in various aspects of the field of criminology and criminal justice will be covered.

ESG1	Kimberly Clements	Seats (Total: 30)
	W 5:00pm - 7:30pm	BLD2 3012
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS428C **Special Topics in Criminology and Criminal Justice; Criminal Profiling**

Topics in various aspects of the field of criminology and criminal justice will be covered.

ESG1	Louis Morlier	Seats (Total: 40)
	Tu 3:00pm - 5:30pm	BLD3 2230
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS450 **Advanced Juvenile Delinquency**

(Perm req)

Prerequisite: CCJS105 and CCJS300. Credit only granted for: CCJS350 or CCJS450.

Examination of juvenile delinquency in the United States. Nature and extent of juvenile delinquency, historical approaches, sociological and criminological theories and research, social contexts including the institutions of families, schools, and peers, and social responses. Prevention, punishment, and treatment programs, both within and outside of the juvenile justice and criminal justice systems.

0101	Jessica Morabito Class time/details on ELMs	Seats (Total: 50) ONLINE
0201	Selena Price MWF 1:00pm - 1:50pm	Seats (Total: 50) SQH 1117
0301	Robert Brame TuTh 9:30am - 10:45am	Seats (Total: 50) TYD 1132
ESG1	Carlotta Woodward M 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) BLD3 3220 ONLINE
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS451 **Crime and Delinquency Prevention**

(Perm req)

Prerequisite: CCJS105 and CCJS300.

Methods and programs in prevention of crime and delinquency.

0101	Brett Lacey MW 3:30pm - 4:45pm	Seats (Total: 50) TYD 1101
0301	Brett Lacey TuTh 11:00am - 12:15pm	Seats (Total: 50) TYD 1102

CCJS454 **Contemporary Criminological Theory**

(Perm req)

Prerequisite: CCJS300 and CCJS105.

Examination of the main theoretical accounts that explain the underlying causes of criminal behaviors. Explore how individual choices, socialization experiences, biological factors and social structure affect criminal behaviors.

0101	Maria Velez MW 2:00pm - 3:15pm	Seats (Total: 50) SKN 0104

CCJS461 **Psychology of Criminal Behavior**

(Perm req)

Prerequisite: CCJS105 and CCJS300.

Biological, environmental, and personality factors which influence criminal behaviors. Biophysiology and crime, stress and crime, maladjustment patterns, psychoses, personality disorders, aggression and violent crime, sex-motivated crime and sexual deviations, alcohol and drug abuse, and criminal behavior.

Contact department for information to register for this course.

CCJS489H **Honors Thesis Research**

(Perm req)

Designed for students completing their honors thesis.

0101	Bianca Bersani	Seats (Total: 20)
	Th 3:30pm - 6:00pm	LEF 1171

CCJS498R **Selected Topics in Criminology and Criminal Justice; Women and Crime**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Cortney Fisher	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS498Y **Selected Topics in Criminology and Criminal Justice; Rules of Engagement: Evidence in Criminal Trials**

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	James Trusty	Seats (Total: 40)
	Tu 6:30pm - 9:00pm	BLD3 4230
	Restricted to students in the Criminology & Criminal Justice Program at USG.	

CCJS602 **Courts and Sentencing**

Research and theory on prosecution, plea-bargaining, sentencing principles and guidelines, and sentencing policies in practice. Mandatory minimum sentencing, "three strikes" laws, race, gender and class disparities, general and specific deterrent effects of sentencing, restitution and restorative justice, diversion and sentencing to treatment.

0101	Brian Johnson	Seats (Total: 20)
	W 4:00pm - 6:45pm	LEF 2165E

CCJS604 **Policy Analysis Project**

(Perm req)

An application of statistical and conceptual tools to criminal justice data in the student's area of concentration, resulting in a paper reporting the conceptualization, analytic methods and results. The topic of the independent study will be chosen through individual consultation with the instructor.

Contact department for information to register for this course.

CCJS605 **Program Evaluation for Criminal Justice**

Credit only granted for: CCJS605 or CCJS609. Formerly: CCJS609.

Designing, implementing and evaluating programs in criminal justice. Topics include diagnosing program needs, planning and tailoring evaluation programs, program monitoring, assessing program impact, program efficiency, and the social context of evaluation.

Contact department for information to register for this course.

CCJS610 **Research Methods in Criminal Justice and Criminology**

Formerly: CRIM610.

Examination of special research problems and techniques.

0101	Min Xie	Seats (Total: 23)
	Tu 4:00pm - 6:45pm	LEF 1171

CCJS611 **Statistical Tools for Criminal Justice**

An introduction to essential statistical concepts for analyzing crime and evaluating criminal justice policies. Interpreting crime trends and correlations, risk and conditional probability analysis for repeat offenders and hot spots of crime, time series analysis, experimental statistics, effect sizes, statistical power and significance.

Contact department for information to register for this course.

CCJS615 **Criminal Procedure Law**

Credit only granted for: CCJS678E or CCJS615. Formerly: CCJS678E.

This course is intended to introduce students to basic issues in China's criminal procedure law.

Contact department for information to register for this course.

CCJS616 **International Law and Process**

Restriction: Students in the CCJS Masters program in China. Credit only granted for: CCJS616 or CCJS678D. Formerly: CCJS678D.

International law in globalized world and its functions.

Contact department for information to register for this course.

CCJS621 **General Linear Models in Criminal Justice Research**

Prerequisite: CCJS620. Credit only granted for: CCJS498F or CCJS621. Formerly: CCJS498F.

An in-depth exploration of applied linear regression analysis. Covers characteristics of estimates, such as unbiasedness and efficiency. Encourages fluency with the theoretical issues involved in the basic linear regression using simple algebra, familiarity with the general model using matrix algebra, and fluency with the computer application of multivariate regressions and the probit/logit models.

0101	Greg Midgette	Seats (Total: 25)
	M 4:00pm - 6:45pm	LEF 2165E

CCJS633 Translating Research into Practice

Prerequisite: CCJS632. Restriction: Permission of BSOS-Criminology & Criminal Justice department.

Law enforcement policy and practice is increasingly "evidence based." This course will focus on understanding data sources and the fundamentals of research methodology, focusing on how data and methodological choices shape the conclusions that can be drawn. At the end of this course, students will be able to discern between research of good and poor quality and understand the crucial benefits of evaluation.

PLL1	Meagan Cahill	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

CCJS651 Seminar in Criminology

Formerly: CRIM651.

Analysis of significant recent issues in Criminology.

0101	Maria Velez	Seats (Total: 25)
	W 4:00pm - 6:45pm	LEF 2207

CCJS658 Civil Legal Issues in Policing

Provides a historical and legal understanding of police practices and what constitutes police misconduct. Students will also evaluate proposals aimed at reforming police departments across the United States and will grapple with many of the civil legal obstacles that have prevented such reforms to take effect.

PLL1	Benjamin Yelin	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

CCJS661 Crime and the Life Course

Credit only granted for: CCJS699J or CCJS661. Formerly: CCJS699J.

Designed to provide an intensive examination of crime and the life course. Life course is examined as a theoretical orientation, a research methodology, and an empirical field of study with special reference to crime and deviance. Course includes development of criminal behavior and criminal careers; stability and change in criminal behavior across developmental stages; trajectories, transitions, and turning points through life; quantitative and qualitative approaches to studying crime and the life course; and social change and its link to individual lives.

0101	Bianca Bersani	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	LEF 2165E

CCJS699 **Special Criminological Problems**

Supervised study of a selected problem in the field of criminal justice.

Contact department for information to register for this course.

CCJS699F **Special Criminological Problems; Data Sciences**

Supervised study of a selected problem in the field of criminal justice.

0101	Zubin Jelveh	Seats (Total: 20)
	M 4:00pm - 6:45pm	LEF 2207

CCJS700 **Advanced Research Methods in Criminology and Criminal Justice**

Prerequisite: CCJS610.

An in-depth inventory of the methods of criminological research. It considers the philosophy of science and research ethics; discusses sampling, measurement and methods of data collection, including survey, experimental, evaluation, and qualitative research.

0101	Lauren Porter	Seats (Total: 20)
	Th 4:00pm - 6:45pm	LEF 2165E

CCJS799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CCJS898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

CCJS899 **Doctoral Dissertation Research**

(Perm req)

Doctoral dissertation research in criminal justice and criminology.

Contact department for information to register for this course.

CHBE Chemical and Biomolecular Engineering Spring 2024

CHBE101 **Introduction to Chemical and Biomolecular Engineering**

(Perm req)

Prerequisite: CHEM135; or students who have taken courses with comparable content may contact the department. Corequisite: MATH141. Restriction: Must be in Engineering: Chemical program; or permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE101 or ENCH215. Formerly: ENCH215.

Introduction to methods of chemical engineering calculations and analysis. Stoichiometric relations, material and energy balances, and behavior of gases, vapors, liquids and solids. Analytical and computer methods.

0101	Taylor Woehl	Seats (Total: 120)	
	MWF 12:00pm - 12:50pm	CHE 2110	
	F 1:00pm - 1:50pm	CHE 2110	Discussion

CHBE302 **Chemical and Biomolecular Engineering Thermodynamics II**

(Perm req)

Prerequisite: CHBE301. Corequisite: CHBE250. Restriction: Must be in a major within ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE302 or ENCH400. Formerly: ENCH400.

Contemporary trends in chemical engineering thermodynamics that bridge the gap between fundamentals and applications. Thermodynamic analysis of non-ideal and structured systems; such as complex fluids, strongly fluctuating and nanoscale systems, dissipative systems, biosystems, and systems under extreme conditions.

0101	Jeffery Klauda	Seats (Total: 49)	
	TuTh 9:30am - 10:45am	CHE 2118	
	F 10:00am - 10:50am	CHE 2118	Discussion

CHBE333 **Chemical Engineering Seminar**

(Perm req)

Restriction: Junior standing; and must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE333 or ENCH333. Formerly: ENCH333.

To develop oral communication skills through a series of class presentations of current chemical engineering topics.

0101	Nam Sun Wang W 2:00pm - 2:50pm	Seats (Total: 15) PHY 4222	
0102	Nam Sun Wang W 11:00am - 11:50am	Seats (Total: 15) CHE 2145	

CHBE369 **Teaching Experiences in Chemical Engineering**

(Perm req)

Students will obtain pedagogical experience by assisting with the teaching of undergraduate courses in Chemical and Biomolecular Engineering.

Contact department for information to register for this course.

CHBE422 **Chemical and Biomolecular Engineering Transport Phenomena I**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE101, CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE422 or ENCH422. Formerly: ENCH422.

Principals of fluid dynamics as applied to model development and process design. Mass, momentum and energy conservation. Statics and surface tension. Equation of Continuity and Navier-Stokes Equation with application to laminar flow. Dimensional analysis. Macroscopic balances, Bernoulli Equation and friction factors with application to turbulent flow.

0101	Panagiotis Dimitrakopoulos TuTh 2:00pm - 3:15pm M 10:00am - 10:50am	Seats (Total: 28) CHE 2145 CHE 2145	 Discussion

CHBE424 **Chemical and Biomolecular Engineering Transport Phenomena II**

(Perm req)

Prerequisite: CHBE422. Corequisite: CHBE302. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE424 or ENCH424. Formerly: ENCH424.

Principles of mass and heat transfer as applied to model development and process design. Species continuity equation with application to diffusion, and convection in laminar flow. Macroscopic balances and mass transfer coefficients with application to turbulent flow. Microscopic equation of energy with application to heat conduction, and convection in laminar flow. Macroscopic energy balance and heat transfer coefficients with application to turbulent flow. Heat exchanger design.

0101	Kristen Fawole	Seats (Total: 69)	
	TuTh 12:30pm - 1:45pm	CHE 2110	
	F 11:00am - 11:50am	CHE 2110	Discussion

CHBE426 **Chemical and Biomolecular Separation Processes**

(Perm req)

Corequisite: CHBE302; and CHBE424. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE426 or ENCH426. Formerly: ENCH426.

Separation by stages operations. Rate dependent separation processes. Design application in distillation, gas absorption, liquid extraction, drying, adsorption and ion exhange.

0102	Po-Yen Chen	Seats (Total: 70)	
	MWF 9:00am - 9:50am	CHE 2110	
	W 10:00am - 10:50am	CHE 2108	Discussion

CHBE440 **Chemical Kinetics and Reactor Design**

(Perm req)

Prerequisite: Minimum grade of C- in CHBE301, MATH241, and MATH246. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE440 or ENCH440. Formerly: ENCH440.

Fundamentals of chemical reaction kinetics and their application to the design and operation of chemical reactors. Reaction rate theory, homogeneous reactions and catalysis electrochemical reactions. Catalytic reactor design.

0101	Chen Zhang	Seats (Total: 28)	
	TuTh 3:30pm - 4:45pm	CHE 2145	
	M 11:00am - 11:50am	CHE 2145	Discussion

CHBE446 **Process Engineering Economics and Design II**

(Perm req)

Prerequisite: CHBE442 and CHBE444. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE446 or ENCH446. Formerly: ENCH446.

Application of chemical engineering principles for the design of chemical processing equipment. Representative problems in the design of chemical plants will be the focus of this capstone design class. Comprehensive reports are required.

0103	Nam Sun Wang	Seats (Total: 80)	
	M 2:00pm - 4:30pm	CHE 2110	

CHBE451 **Photovoltaics: Solar Energy**

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE651. Credit only granted for: ENCH468L, CHBE451 or CHBE651. Formerly: ENCH468L.

The emphasis of the class is on developing a conceptual understanding of the device physics and manufacturing processes of crystalline and thin-film photovoltaic cells, and to develop elementary computational skills necessary to quantify solar cell efficiency. The class material includes detailed, system-level energy balances necessary to understand how solar energy fits into the complete energy generation, conversion, and storage picture. Quantitative comparisons of PV technology to solar chemical conversion processes and biofuels are made.

0101	Raymond Adomaitis	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMP 2216

CHBE468 **Research**

(Perm req)

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE468D **Research; Intro to Molecular and Cellular Bioengineering**

(Perm req)

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

Restriction: Permission of department.

0101	William Bentley	Seats (Total: 5)
	TuTh 9:30am - 10:45am	AJC 2132

CHBE469 **Special Projects**

(Perm req)

Special project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE473 **Electrochemical Energy Engineering**

(Perm req)

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE673. Credit only granted for: ENCH468K, CHBE473 or CHBE673. Formerly: ENCH468K.

The lecture will start from the basic electrochemical thermodynamics and kinetics, with emphasis on electrochemical techniques, fundamental principle and performance of batteries, and supercapacitors.

0101	Paul Albertus	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	CHE 2145

CHBE474 **Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Prerequisite: BIOE120; and permission of instructor. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE674. Credit only granted for: CHBE474, BIOE489T, ENCH648D or CHBE674.

Covers the fundamental steps involved in process development and manufacturing of biopharmaceuticals. An overview of different classes of biopharmaceuticals as well as manufacturing requirements for clinical development and regulatory approval will be provided. In depth coverage of manufacturing steps including cell culture, purification and formulation as well as drug product manufacturing, analysis and stability will be covered. Scientific literature will be used to highlight current challenges and novel solutions in each step of the manufacturing process. Scale up considerations, GMP requirements and process economics will also be introduced.

0101	Deborah Goldberg	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	AJC 2121

CHBE480 **Bionanotechnology: Physical Principles**

(Perm req)

Prerequisite: BIOE120; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE680. Credit only granted for: ENCH648N, CHBE480 or CHBE680.

Physics at nano/micro scales. Biomolecular building blocks. Simplest biomolecular assembly: protein folding. Nanoscale intermolecular interactions important for biology. Protein-ligand binding. Protein higher-order assembly: filaments, networks. Protein filaments and motility. DNA, RNA and their assembly assisted by proteins. Viral capsid assembly. Lipid assembly into micelles, bilayers. Lipid-protein co-assembly in membranes. Lipid and polymer structures useful in medicine. Targeted delivery of drugs, genes by nano/micro structures. Cellular assembly in the eye, in insect wings. Cellular assembly at surfaces: gecko feet, duck feathers. Cellular assembly in the presence of crystals: biomineralization.

0101	Srinivasa Raghavan	Seats (Total: 24)
	TuTh 2:00pm - 3:15pm	CHE 2136

CHBE497 **Protein Engineering**

(Perm req)

Prerequisite: BIOE120, CHBE302, and CHBE440; and permission of instructor. Jointly offered with: CHBE697. Credit only granted for: CHBE497, BIOE489R, ENCH 648P or CHBE697.

This course will cover the fundamentals of protein engineering and its applications in medicine, chemical processes, and energy. Topics will include the structure and function of biological molecules, rational design and directed evolution, construction of protein and peptide libraries, protein screening platforms, methods for characterizing structure and function of biological molecules. Scientific literature will be used to highlight key discoveries and current work in protein engineering.

0101	Amy Karlsson	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	AJC 2119

CHBE608 **Research in Chemical Engineering**

(Perm req)

Students gain experience in research through lab rotations and experience presenting their findings.

Contact department for information to register for this course.

CHBE609 **Graduate Seminar**

(Perm req)

Seminar in Chemical and Biomolecular Engineering

Advanced special students require department permission.

0101	Peter Kofinas	Seats (Total: 30)
	F 11:00am - 12:30pm	CHE 2108

CHBE630 **Transport Phenomena**

(Perm req)

Prerequisite: CHBE422; and ENCH424. Or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH630 or CHBE630. Formerly: ENCH630.

Heat, mass and momentum transfer theory from the viewpoint of the basic transport equations. Steady and unsteady state; laminar and turbulent flow; boundary layer theory, mechanics of turbulent transport; with specific application to complex chemical engineering situations.

0101	Panagiotis Dimitrakopoulos	Seats (Total: 28)
	MW 3:30pm - 4:45pm	CHE 2145

CHBE640 **Advanced Chemical Reaction Kinetics**

(Perm req)

Prerequisite: CHBE440; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH640 or CHBE640. Formerly: ENCH640.

The theory and application of chemical reaction kinetics to reactor design. Reaction rate theory; homogeneous batch and flow reactors; fundamentals of catalysis; design of heterogeneous flow reactors.

0101	Kyu Yong Choi MW 2:00pm - 3:15pm	Seats (Total: 28) CHE 2145

CHBE648 **Special Problems in Chemical Engineering**

(Perm req)

Research project under the direction of a faculty member.

Contact department for information to register for this course.

CHBE651 **Photovoltaics: Solar Energy**

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE451. Credit only granted for: CHBE451 or CHBE651.

The emphasis of the class is on developing a conceptual understanding of the device physics and manufacturing processes of crystalline and thin-film photovoltaic cells, and to develop elementary computational skills necessary to quantify solar cell efficiency. The class material includes detailed, system-level energy balances necessary to understand how solar energy fits into the complete energy generation, conversion, and storage picture. Quantitative comparisons of PV technology to solar chemical conversion processes and biofuels are made.

0101	Raymond Adomaitis TuTh 9:30am - 10:45am	Seats (Total: 5) JMP 2216

CHBE673 **Electrochemical Energy Engineering**

(Perm req)

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE473. Credit only granted for: CHBE473 or CHBE673.

Basic electrochemical thermodynamics and kinetics, with emphasis on electrochemical techniques, fundamental principle and performance of batteries, and supercapacitors.

0101	Chunsheng Wang MW 11:00am - 12:15pm	Seats (Total: 5) JMP 2121
ME01	Chunsheng Wang Class time/details on ELMs	Seats (Total: 10) ONLINE

CHBE680 **Bionanotechnology: Physical Principles**

(Perm req)

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE480. Credit only granted for: ENCH648N, CHBE480 or CHBE680. Formerly: ENCH648N.

Physics at nano/micro scales. Biomolecular building blocks. Simplest biomolecular assembly: protein folding. Nanoscale intermolecular interactions important in biology. Protein-ligand binding. Protein higher-order assembly: filaments, networks. Protein filaments and motility. DNA, RNA and their assembly assisted by proteins. Viral capsid assembly. Lipid assembly into micelles, bilayers. Lipid-protein co-assembly in membranes. Lipid and polymer-based carriers useful in medicine. Antimicrobial therapies. Targeted cancer therapy. Ideal properties of nanocarriers in terms of size, charge, and surface chemistry.

0101	Srinivasa Raghavan	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	CHE 2136

CHBE697 **Protein Engineering**

(Perm req)

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE497. Credit only granted for: CHBE497, BIOE489R, ENCH 648P or CHBE697. Formerly: ENCH648P.

Covers the fundamentals of protein engineering and its applications in medicine, chemical processes, and energy. Topics will include the structure and function of biological molecules, rational design and directed evolution, construction of protein and peptide libraries, protein screening platforms, methods for characterizing structure and function of biological molecules. Scientific literature will be used to highlight key discoveries and current work in protein engineering.

0101	Amy Karlsson	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	AJC 2119

CHBE799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CHBE898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

CHBE899 **Doctoral Dissertation Research; Chemical Engineering**

(Perm req)

Contact department for information to register for this course.

CHEM Chemistry Spring 2024

CHEM131 **Chemistry I - Fundamentals of General Chemistry**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

1115	Ashley Baxter TuTh 8:00am - 9:15am M 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1116	Ashley Baxter TuTh 8:00am - 9:15am M 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1117	Ashley Baxter TuTh 8:00am - 9:15am M 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1135	Ashley Baxter TuTh 8:00am - 9:15am W 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1136	Ashley Baxter TuTh 8:00am - 9:15am W 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1138	Ashley Baxter TuTh 8:00am - 9:15am W 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1214	Amanda Schech TuTh 11:00am - 12:15pm M 10:00am - 10:50am	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
1215	Amanda Schech TuTh 11:00am - 12:15pm M 11:00am - 11:50am	Seats (Total: 35) CHM 1407 PHY 2213	Discussion

1216	Amanda Schech TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
1234	Amanda Schech TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
1235	Amanda Schech TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
1236	Amanda Schech TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
1314	Lenea Stocker TuTh 12:30pm - 1:45pm M 11:00am - 11:50am	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1315	Lenea Stocker TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1317	Lenea Stocker TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1334	Lenea Stocker TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1335	Lenea Stocker TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1337	Lenea Stocker TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion

SES1	Amanda Schech M 6:30pm - 9:30pm W 6:30pm - 7:20pm	Seats (Total: 20) PHY 2124 ESJ 2309	 Discussion
	Must be in the Science in the Evening (SIE) Program. Click here for more information.		

CHEM132 **General Chemistry I Laboratory**

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Laboratory sessions will begin after the first lecture. Students must pay a $40.00 lab materials fee.

1111	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1312	 Lab
1121	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	 Lab
1122	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	 Lab
1131	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	 Lab
1132	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	 Lab
1211	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	 Lab
1221	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	 Lab
1222	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	 Lab
1231	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	 Lab

1232	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1321	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1322	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1331	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1332	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1411	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1421	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1422	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab
1431	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1432	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1521	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1522	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1531	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1532	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab

SES1	Christiana Guest W 7:30pm - 10:20pm	Seats (Total: 20) ESJ 1330	Lab
	Must be in the Science in the Evening (SIE) Program. Click here for more information.		

CHEM134 **Chemical Principles for Engineering**

Prerequisite: Minimum grade of C- in CHEM131; or minimum grade of C- in CHEM146. Credit only granted for: CHEM 134 or CHEM 135.

Basic chemistry for engineering students. Introduction to organic structures and polymers, gas laws, liquids, solids, phase changes, chemical kinetics and electrochemistry.

0101	Amanda Souna Tu 3:30pm - 4:20pm	Seats (Total: 50) CHM 1402	

CHEM135 **General Chemistry for Engineers**

Prerequisite: Must have math eligibility of MATH120 or higher. Credit only granted for: CHEM103, CHEM113, CHEM131, CHEM135, or CHEM146.

The nature and composition of matter, solutions, chemical reactions, equilibria, and electrochemistry, with applications to various fields of engineering.

3125	Elizabeth Griffith MWF 3:00pm - 3:50pm Tu 12:30pm - 1:20pm	Seats (Total: 39) ESJ 0224 PHY 2106	Discussion
3127	Elizabeth Griffith MWF 3:00pm - 3:50pm Tu 2:00pm - 2:50pm	Seats (Total: 39) ESJ 0224 PHY 2106	Discussion
3128	Elizabeth Griffith MWF 3:00pm - 3:50pm Tu 3:30pm - 4:20pm	Seats (Total: 39) ESJ 0224 PHY 2106	Discussion
3145	Elizabeth Griffith MWF 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 39) ESJ 0224 PHY 2106	Discussion
3147	Elizabeth Griffith MWF 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 39) ESJ 0224 PHY 2106	Discussion

3148	Elizabeth Griffith MWF 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 39) ESJ 0224 PHY 2106	 Discussion

CHEM136 **General Chemistry Laboratory for Engineers**

Prerequisite: Must have completed or be concurrently enrolled in CHEM135 and must have math eligibility of MATH120 or higher. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

A laboratory course for engineering majors intending to take CHEM231 and CHEM232.

1215	Natalia White Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1330	 Lab
1225	Natalia White Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1330	 Lab

CHEM231 **Organic Chemistry I**

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, CHEM147, or CHEM177); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM232. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters and spectroscopy.

5116	Sonia Hirschauer TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 PHY 2213	 Discussion
5117	Sonia Hirschauer TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2213	 Discussion
5118	Sonia Hirschauer TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 35) CHM 1407 PHY 2213	 Discussion
5136	Sonia Hirschauer TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 PHY 2213	 Discussion

5137	Sonia Hirschauer TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
5138	Sonia Hirschauer TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
5322	Sonia Hirschauer MWF 10:00am - 10:50am Tu 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
5325	Sonia Hirschauer MWF 10:00am - 10:50am Tu 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
5328	Sonia Hirschauer MWF 10:00am - 10:50am Tu 3:30pm - 4:20pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
5342	Sonia Hirschauer MWF 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
5345	Sonia Hirschauer MWF 10:00am - 10:50am Th 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
5348	Sonia Hirschauer MWF 10:00am - 10:50am Th 3:30pm - 4:20pm	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
5421	Lenea Stocker MWF 1:00pm - 1:50pm Tu 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 CHM 1224	Discussion
5427	Lenea Stocker MWF 1:00pm - 1:50pm Tu 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 CHM 1224	Discussion

5428	Lenea Stocker MWF 1:00pm - 1:50pm Tu 3:30pm - 4:20pm	Seats (Total: 35) CHM 1407 CHM 1224	 Discussion
5441	Lenea Stocker MWF 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 CHM 1224	 Discussion
5447	Lenea Stocker MWF 1:00pm - 1:50pm Th 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 CHM 1224	 Discussion
5448	Lenea Stocker MWF 1:00pm - 1:50pm Th 3:30pm - 4:20pm	Seats (Total: 35) CHM 1407 CHM 1224	 Discussion
5511	James Rainbolt TuTh 8:00am - 9:15am M 8:00am - 8:50am	Seats (Total: 35) PHY 1412 CHM 1224	 Discussion
5512	James Rainbolt TuTh 8:00am - 9:15am M 9:00am - 9:50am	Seats (Total: 35) PHY 1412 CHM 1224	 Discussion
5513	James Rainbolt TuTh 8:00am - 9:15am M 10:00am - 10:50am	Seats (Total: 35) PHY 1412 CHM 1224	 Discussion
5531	James Rainbolt TuTh 8:00am - 9:15am W 8:00am - 8:50am	Seats (Total: 35) PHY 1412 CHM 1224	 Discussion
5532	James Rainbolt TuTh 8:00am - 9:15am W 9:00am - 9:50am	Seats (Total: 35) PHY 1412 CHM 1224	 Discussion
5533	James Rainbolt TuTh 8:00am - 9:15am W 10:00am - 10:50am	Seats (Total: 35) PHY 1412 CHM 1224	 Discussion

SES1	Monique Koppel M 6:30pm - 9:30pm W 6:30pm - 7:20pm	Seats (Total: 30) PHY 2211 PHY 2211	 Discussion
	Restricted to students in the SIE Program. Click here for more information.		

CHEM232 **Organic Chemistry Laboratory I**

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Students must pay a $40.00 lab materials fee.

5121	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	 Lab
5122	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	 Lab
5123	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	 Lab
5131	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	 Lab
5132	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	 Lab
5134	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	 Lab
5141	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1342	 Lab
5142	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	 Lab
5143	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	 Lab

5221	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
5222	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5223	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5224	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1360	Lab
5232	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5233	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab
5234	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1360	Lab
5241	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1342	Lab
5242	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5243	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5321	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1360	Lab
5322	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5323	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5332	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab

5333	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5343	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5345	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5422	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5423	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5432	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5441	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1342	Lab
5442	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5443	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5521	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
5522	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5523	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5531	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
5532	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab

5533	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5534	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	Lab
SES1	Monique Koppel W 7:30pm - 10:20pm	Seats (Total: 18) CHM 1346	Lab
	Must be in the Science in the Evening (SIE) Program. Click here for more information.		

CHEM232S **Organic Chemistry Laboratory I**

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Students must pay a $40.00 lab materials fee.

5133	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
5231	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab
5434	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab

CHEM237 **Principles of Organic Chemistry I**

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, or CHEM147); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Or permission of CMNS-Chemistry & Biochemistry department. Restriction: Must be in one of the following programs (Chemistry; Biochemistry) ; or must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: CHEM233, (CHEM231 and CHEM232), or CHEM237.

The chemistry of carbons: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters, and spectroscopy.

Students must pay a $40.00 lab materials fee.

5325	Lai-Xi Wang	Seats (Total: 18)	
	MWF 10:00am - 10:50am W 12:00pm - 2:50pm Tu 12:30pm - 1:20pm	CHM 1402 CHM 1342 PHY 2208	 Lab Discussion
5335	Lai-Xi Wang	Seats (Total: 18)	
	MWF 10:00am - 10:50am W 3:00pm - 5:50pm Tu 12:30pm - 1:20pm	CHM 1402 CHM 1342 PHY 2208	 Lab Discussion
5345	Lai-Xi Wang	Seats (Total: 18)	
	MWF 10:00am - 10:50am Th 12:30pm - 3:20pm Tu 2:00pm - 2:50pm	CHM 1402 CHM 1342 PHY 2208	 Lab Discussion
5355	Lai-Xi Wang	Seats (Total: 18)	
	MWF 10:00am - 10:50am Th 3:30pm - 6:20pm Tu 2:00pm - 2:50pm	CHM 1402 CHM 1342 PHY 2208	 Lab Discussion

CHEM241 **Organic Chemistry II**

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Credit only granted for: CHEM241, CHEM243 or CHEM247. Formerly: CHEM243.

A continuation of CHEM231 with emphasis on molecular structure; substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

6121	Jeffery Davis	Seats (Total: 24)	
	MWF 9:00am - 9:50am Tu 8:00am - 8:50am	CHM 1407 PHY 2208	 Discussion
6125	Jeffery Davis	Seats (Total: 24)	
	MWF 9:00am - 9:50am Tu 9:30am - 10:20am	CHM 1407 PHY 2208	 Discussion
6127	Jeffery Davis	Seats (Total: 24)	
	MWF 9:00am - 9:50am Tu 11:00am - 11:50am	CHM 1407 PHY 2208	 Discussion

6141	Jeffery Davis MWF 9:00am - 9:50am Th 8:00am - 8:50am	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6145	Jeffery Davis MWF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6147	Jeffery Davis MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6222	Lyle Isaacs TuTh 3:30pm - 4:45pm M 1:00pm - 1:50pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6225	Lyle Isaacs TuTh 3:30pm - 4:45pm M 2:00pm - 2:50pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6227	Lyle Isaacs TuTh 3:30pm - 4:45pm M 3:00pm - 3:50pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6242	Lyle Isaacs TuTh 3:30pm - 4:45pm W 1:00pm - 1:50pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6245	Lyle Isaacs TuTh 3:30pm - 4:45pm W 2:00pm - 2:50pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6247	Lyle Isaacs TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 24) CHM 1407 PHY 2208	Discussion
6321	Monique Koppel MWF 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 24) CHM 1407 CHM 1228	Discussion

6322	Monique Koppel MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 24) CHM 1407 CHM 1228	 Discussion
6325	Monique Koppel MWF 2:00pm - 2:50pm Tu 3:30pm - 4:20pm	Seats (Total: 24) CHM 1407 CHM 1228	 Discussion
6341	Monique Koppel MWF 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 24) CHM 1407 CHM 1228	 Discussion
6342	Monique Koppel MWF 2:00pm - 2:50pm Th 2:00pm - 2:50pm	Seats (Total: 24) CHM 1407 CHM 1228	 Discussion
6345	Monique Koppel MWF 2:00pm - 2:50pm Th 3:30pm - 4:20pm	Seats (Total: 24) CHM 1407 CHM 1228	 Discussion
SES1	Howard Fribush M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) Program. Click here for more information.*	Seats (Total: 24) CHM 1228 CHM 1228	 Discussion

CHEM242 **Organic Chemistry Laboratory II**

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM241. Credit only granted for: CHEM243 or CHEM247. Formerly: CHEM243.

Synthetic organic chemistry through functional group manipulation, introduction to instrumentation essential to analysis and structure elucidation.

Students must pay a $40.00 lab materials fee.

6121	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	 Lab
6131	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	 Lab

6132	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
6141	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6221	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6222	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6231	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6241	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab
6321	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6331	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6341	Lee Friedman W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6421	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6422	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6431	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6432	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6441	Lee Friedman Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab

6521	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6531	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6532	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
SES1	Lee Friedman W 7:30pm - 10:20pm *Must be in the Science in the Evening (SIE) Program.*	Seats (Total: 18) CHM 1330	Lab

CHEM271 **General Chemistry and Energetics**

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM272. Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM113.

An introduction to the physical aspects of chemistry; chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

2122	James Rainbolt MW 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 34) CHM 1407 PHY 2106	Discussion
2124	James Rainbolt MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 34) CHM 1407 PHY 2106	Discussion
2125	James Rainbolt MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 34) CHM 1407 PHY 2106	Discussion
2142	James Rainbolt MW 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 34) CHM 1407 PHY 2106	Discussion
2144	James Rainbolt MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 34) CHM 1407 PHY 2106	Discussion

2145	James Rainbolt MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 34) CHM 1407 PHY 2106	Discussion
2224	Alice Mignerey MW 12:00pm - 12:50pm Tu 12:30pm - 1:20pm	Seats (Total: 34) CHM 1407 PHY 2122	Discussion
2227	Alice Mignerey MW 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 34) CHM 1407 PHY 2122	Discussion
2228	Alice Mignerey MW 12:00pm - 12:50pm Tu 3:30pm - 4:20pm	Seats (Total: 34) CHM 1407 PHY 2122	Discussion
2244	Alice Mignerey MW 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 34) CHM 1407 PHY 2122	Discussion
2247	Alice Mignerey MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 34) CHM 1407 PHY 2122	Discussion
2248	Alice Mignerey MW 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 34) CHM 1407 PHY 2122	Discussion
SES1	James Rainbolt M 6:00pm - 7:50pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) Program.*	Seats (Total: 20) CHM 1224 ESJ B0322	Discussion

CHEM272 **General Bioanalytical Chemistry Laboratory**

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM271. Credit only granted for: CHEM227, CHEM272 or CHEM277.

An introduction to analytical chemistry with an emphasis on bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Amanda Schech F 11:00am - 11:50am M 9:00am - 11:50am	Seats (Total: 12) CHM 1407 ESJ 2312	 Lab
8132	Amanda Schech F 11:00am - 11:50am M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
8211	Amanda Schech F 11:00am - 11:50am Tu 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8222	Amanda Schech F 11:00am - 11:50am Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
8231	Amanda Schech F 11:00am - 11:50am Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8321	Amanda Schech F 11:00am - 11:50am W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8331	Amanda Schech F 11:00am - 11:50am W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8431	Amanda Schech F 11:00am - 11:50am Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8521	Amanda Schech F 11:00am - 11:50am F 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8522	Amanda Schech F 11:00am - 11:50am F 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab

9112	Amanda Schech F 12:00pm - 12:50pm M 9:00am - 11:50am	Seats (Total: 12) CHM 1407 ESJ 2316	 Lab
9121	Amanda Schech F 12:00pm - 12:50pm M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9131	Amanda Schech F 12:00pm - 12:50pm M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9221	Amanda Schech F 12:00pm - 12:50pm Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9232	Amanda Schech F 12:00pm - 12:50pm Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9322	Amanda Schech F 12:00pm - 12:50pm W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9332	Amanda Schech F 12:00pm - 12:50pm W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9411	Amanda Schech F 12:00pm - 12:50pm Th 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9421	Amanda Schech F 12:00pm - 12:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9422	Amanda Schech F 12:00pm - 12:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab

9432	Amanda Schech F 12:00pm - 12:50pm Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9531	Amanda Schech F 12:00pm - 12:50pm F 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9532	Amanda Schech F 12:00pm - 12:50pm F 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
SES1	Amanda Schech W 7:30pm - 10:20pm M 8:00pm - 8:50pm *Must be in the Science in the Evening (SIE) Program.*	Seats (Total: 20) ESJ 2312 ONLINE	 Lab Discussion

CHEM276 **General Chemistry and Energetics - Majors**

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM277. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM153.

An introduction to the physical aspects of chemistry for Biochemistry and Chemistry majors. Chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

0224	John Fourkas WF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 34) ATL 2400 CHM 1224	 Discussion
0225	John Fourkas WF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 34) ATL 2400 CHM 1224	 Discussion

CHEM277 **Fundamentals of Analytical and Bioanalytical Chemistry Laboratory**

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM276. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM153, CHEM227, CHEM272 or CHEM277.

Quantitative analysis, inorganic analytical chemistry, and an introduction to bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Ashley Baxter M 9:00am - 9:50am MW 12:00pm - 2:50pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8121	Ashley Baxter M 9:00am - 9:50am TuTh 12:30pm - 3:20pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8122	Ashley Baxter M 9:00am - 9:50am TuTh 3:30pm - 6:20pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab
8131	Ashley Baxter M 9:00am - 9:50am WF 3:00pm - 5:50pm	Seats (Total: 18) ATL 2400 ESJ 0312	 Lab

CHEM395 **Professional Issues in Chemistry and Biochemistry**

Restriction: Junior standing or higher; and must be in one of the following programs (Chemistry; Biochemistry).

Seminar on professional issues. Professional responsibilities, ethics, interview techniques, career opportunities, graduate/professional school, race and gender issues.

0101	Janice Reutt-Robey Tu 11:00am - 11:50am	Seats (Total: 117) CHM 1402

CHEM398 **Special Projects**

(Perm req)

Honors projects for undergraduate students.

Limited to chemistry honors students. Consult with Dr. Montague-Smith.

Contact department for information to register for this course.

CHEM399A **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399B **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399C **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399X **Introduction to Chemical Research**

(Perm req)

Basic (chemical) research conducted under the supervision of a faculty member.

Prerequsite: permission of department.

0101	Lee Friedman Contact instructor or department for details.	Seats (Total: 15)	

CHEM401 **Inorganic Chemistry**

Prerequisite: CHEM276 or CHEM271; and (CHEM247 or CHEM241).

An overview of basic concepts of the electronic structure of the elements, chemical bonding and reactivity, from simple diatomic molecules to coordination compounds. These are viewed from simple (Lewis) to the most comprehensive molecular orbital theory. Symmetry and group theory are used throughout the course.

0101	Andrei Vedernikov MWF 2:00pm - 2:50pm	Seats (Total: 66) CSI 3117	

CHEM425 **Instrumental Methods of Analysis**

Prerequisite: CHEM272 and CHEM271; or (CHEM276 and CHEM277).

Modern instrumentation in analytical chemistry. Electronics, spectroscopy, chromatography and electrochemistry.

Students must pay a $40.00 lab materials fee.

0101	Natalia White MW 11:00am - 11:50am MW 1:00pm - 3:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0102	Natalia White MW 11:00am - 11:50am TuTh 12:30pm - 3:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab

0105	Natalia White	Seats (Total: 12)	
	MW 11:00am - 11:50am	CHM 1402	
	MW 6:00pm - 8:50pm	CHM 3228	Lab

CHEM433 **Atmospheric Chemistry and Climate**

Prerequisite: CHEM131, CHEM135, or CHEM146. And MATH241; or permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Chemistry & Biochemistry department. Cross-listed with AOSC433. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633. Formerly: CHEM434.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch	Seats (Total: 24)
	TuTh 2:00pm - 3:15pm	ATL 2428

CHEM480 **Principles of Physical Chemistry**

Prerequisite: (CHEM276 or CHEM271); and (CHEM277 or CHEM272); and (MATH141 or MATH136); and (PHYS260 and PHYS261) or PHYS132.

Covers elementary thermodynamics, principles of kinetics and catalysis and selected topics in molecular quantum mechanics, spectroscopy and statistical mechanics. Topics will emphasize core subjects along with applications to biosciences, materials science, environmental science and related areas.

0101	Elizabeth Griffith	Seats (Total: 30)
	MWF 10:00am - 10:50am	CHM 1228

CHEM481 **Physical Chemistry I**

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141.

Thermodynamics and kinetics of chemical and molecular systems. Topics may include internal energy, heat, work, enthalpy, entropy, free energy, and spontaneity as well as reaction order, differential rate laws, integrated rate laws, and rate laws for multi-step processes.

0101	YuHuang Wang	Seats (Total: 70)
	MWF 9:00am - 9:50am	CHM 1402

CHEM482 **Physical Chemistry II**

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141. Credit only granted for: CHEM482 or BCHM485.

Quantum mechanical nature of atoms and molecules. Topics may include model systems for electronic, vibrational, rotational and translational energies as well as connections to molecular spectroscopy and thermal distributions.

0101	Yu Liu MWF 9:00am - 9:50am	Seats (Total: 54) ESJ 0215	

CHEM483 **Physical Chemistry Laboratory I**

Prerequisite: Must have completed or be concurrently enrolled in CHEM481.

An introduction to the principles and application of quantitative techniques in physical chemical measurements. Experiments will be coordinated with topics in CHEM481.

Students must pay a $40.00 lab materials fee.

0101	Amanda Souna M 4:00pm - 4:50pm W 10:00am - 12:50pm	Seats (Total: 18) CHM 1402 CHM 3225	 Lab
0102	Amanda Souna M 4:00pm - 4:50pm W 2:00pm - 4:50pm	Seats (Total: 18) CHM 1402 CHM 3225	 Lab
0103	Amanda Souna M 4:00pm - 4:50pm Th 2:00pm - 4:50pm	Seats (Total: 18) CHM 1402 CHM 3225	 Lab

CHEM484 **Physical Chemistry Laboratory II**

Prerequisite: CHEM481 and CHEM483; and must have completed or be concurrently enrolled in CHEM482.

A continuation of CHEM 483. Advanced quantitative techniques necessary in physical chemical measurements. Experiments will be coordinated with topics in CHEM 482.

Students must pay a $40.00 lab materials fee.

0101	Amanda Souna Tu 9:30am - 10:20am Tu 3:00pm - 5:50pm	Seats (Total: 13) CHM 1228 CHM 3221	 Lab
0103	Amanda Souna Tu 9:30am - 10:20am W 3:00pm - 5:50pm	Seats (Total: 13) CHM 1228 CHM 3221	 Lab

CHEM498E **Special Topics in Chemistry; Chemistry for Energy and Sustainability**

0101	Efrain Rodriguez TuTh 9:30am - 10:45am	Seats (Total: 22) CHM 2201	

CHEM498N **Special Topics in Chemistry; Natural Products in Medicine and Ecology**

Prerequisite: CHEM247 or CHEM241; and BCHM461 or BCHM462. Chemical and biosynthetic pathways leading to important natural products. Special emphasis on the synthesis, biosynthesis and application of plant-derived secondary metabolites and their use as pharmaceuticals, specialty chemicals and chemical feedstocks.

0101	Jeffery Davis MWF 12:00pm - 12:50pm	Seats (Total: 15) CHM 2201	

CHEM608P **Selected Topics in Inorganic Chemistry; Polymer chemistry**

Topics of special interest and current importance.

0101	Lawrence Sita MWF 1:00pm - 1:50pm	Seats (Total: 20) CHM 2201	

CHEM623 **Optical Methods of Quantitative Analysis**

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

The quantitative applications of various methods of optical spectroscopy.

0101	Neil Blough MWF 2:00pm - 2:50pm	Seats (Total: 17) CHM 2201	

CHEM633 **Atmospheric Chemistry and Climate**

Prerequisite: CHEM131, CHEM135, or CHEM146. Cross-listed with: AOSC633. Credit only granted for: AOSC433, AOSC633, CHEM433, or CHEM633.

The effects of human activity on atmospheric composition, focused on global warming, the carbon cycle, air pollution, and the ozone layer. Fundamentals of atmosphereic chemistry (spectroscopy, kinetics, isotopic analysis, and biogeochemical cycles) are related to the modern understanding of climate change, air quality, and ozone depletion, based on resources such as satellite missions, field campaigns, and scientific assessments published by international agencies. We also examine how society's energy needs could be met, in the future, in a manner with less impact on atmospheric composition than the present heavy reliance on combusion of fossil fuels.

0101	Ross Salawitch	Seats (Total: 4)
	TuTh 2:00pm - 3:15pm	ATL 2428

CHEM647 **Organic Synthesis**

The use of new reagents in organic reactions; multistep syntheses leading to natural products of biological interest; stereospecific and regiospecific reactions and their use in total synthesis.

0101	Xiaodong Shi	Seats (Total: 20)
	MWF 9:00am - 9:50am	CHM 2201

CHEM648N **Special Topics in Organic Chemistry; Natural Products in Medicine and Ecology**

Topics of special interest and current importance.

Prerequisite: CHEM641. Chemical and biosynthetic pathways leading to important natural products. Special emphasis on the synthesis, biosynthesis and application of plant-derived secondary metabolites and their use as pharmaceuticals, specialty chemicals and chemical feedstocks.

0101	Jeffery Davis	Seats (Total: 15)
	MWF 12:00pm - 12:50pm	CHM 2201

CHEM687 **Statistical Mechanics and Chemistry**

Prerequisite: CHEM684; or students who have taken courses with comparable content may contact the department.

0101	Garegin Papoian	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	CHM 1224

CHEM699 **Special Problems in Chemistry**

Laboratory experience in a research environment.

Open only to non-thesis Master's degree candidates.

Contact department for information to register for this course.

CHEM705 **Nuclear Chemistry**

Nuclear structure models, radioactive decay processes, nuclear reactions in complex nuclei, fission, nucleosynthesis and nuclear particle accelerators.

	0101	Alice Mignerey MW 4:00pm - 5:15pm	Seats (Total: 15) CHM 2201

CHEM799 **Master's Thesis Research**
Contact department for information to register for this course.

CHEM889A **Seminar; Analytical, Nuclear and Environmental Chemistry**

	0101	Alice Mignerey F 3:00pm - 5:00pm	Seats (Total: 75) CHM 1402

CHEM889C **Seminar; Inorganic Chemistry**

	0101	Xiaodong Shi Th 11:00am - 12:15pm	Seats (Total: 50) IPT 1116

CHEM889D **Seminar; Organic Chemistry**

	0101	Xiaodong Shi Th 11:00am - 12:15pm	Seats (Total: 25) IPT 1116

CHEM889E **Seminar; Physical Chemistry**

Cross-listed with CHEM889F and CHPH709A. Credit granted for CHEM889E, CHEM889F, or CHPH709A.

	0101	Leah Dodson W 11:00am - 12:15pm	Seats (Total: 55) IPT 1116

CHEM889F **Seminar; Chemical Physics**

Cross-listed with CHEM889E and CHPH709A. Credit granted for CHEM889F, CHEM889E, or CHPH709A.

	0101	Leah Dodson W 11:00am - 12:15pm	Seats (Total: 55) IPT 1116

CHEM889G **Seminar; Physical Organic Chemistry**

	0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

CHEM889M **Seminar; Materials Chemistry**
Contact department for information to register for this course.

CHEM898 **Pre-Candidacy Research**
Contact department for information to register for this course.

CHEM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CHIN Chinese Spring 2024

CHIN100 **Introduction to Chinese Language and Culture**

An introduction to the Chinese language and Chinese culture, including philosophy, history, religions, traditions (such as festivals, customs, and food), poetry, visual arts (such as calligraphy and painting), music (on such instrument as Guqin), and the martial arts (such as Tai-chi or Taijiquan). No prior Chinese background required, taught in English.

0101	Yuli Wang TuTh 11:00am - 12:15pm	Seats (Total: 15) TYD 1108

CHIN102 **Elementary Spoken Chinese**

(Perm req)

Prerequisite: CHIN101; or students who have taken courses with comparable content may contact the department; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN103. Additional information: Must be taken in conjunction with CHIN103.

Continued study of grammatical patterns and vocabulary buildup with particular emphasis on conversation.

0101	Mei Kong MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 0208
0201	Guiling Hu MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 0208

CHIN103 **Elementary Written Chinese**

(Perm req)

Prerequisite: CHIN101; or students who have taken courses with comparable content may contact the department; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN102. Additional information: Must be taken in conjunction with CHIN102.

Continued study of grammatical patterns and buildup of vocabulary with particular emphasis on reading and writing.

0101	Jungjung Lee-Heitz TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 0208
0201	Guiling Hu Class time/details on ELMs	Seats (Total: 15) ONLINE

CHIN169A **Special Topics in Study Abroad I; Elementary Chinese I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN169B **Special Topics in Study Abroad I; Elementary Chinese II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN201 **Intermediate Spoken Chinese I**

Prerequisite: CHIN102; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN202. Additional information: Must be taken in conjunction with CHIN202.

Emphasis on development of conversational skills with vocabulary build-up and controlled conversation.

Contact department for information to register for this course.

CHIN202 **Intermediate Written Chinese I**

Prerequisite: CHIN103; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN201. Additional information: Must be taken in conjunction with CHIN201.

Reading and writing skills with emphasis on grammar and Chinese characters.

Contact department for information to register for this course.

CHIN203 **Intermediate Spoken Chinese II**

(Perm req)

Prerequisite: CHIN201; or students who have taken courses with comparable content may contact the department; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN204. Additional information: Must be taken in conjunction with CHIN204.

Continuation of CHIN201.

0101	Mei Kong MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 0208
0201	Guiling Hu MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1124

CHIN204 **Intermediate Written Chinese II**

(Perm req)

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department; or must have attained appropriate World Language Placement Test (WLPT) score. Corequisite: CHIN203. Additional information: Must be taken in conjunction with CHIN203.

Continuation of CHIN202.

0101	Jungjung Lee-Heitz TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 0208
0201	Guiling Hu Class time/details on ELMs	Seats (Total: 15) ONLINE

CHIN205 **Intermediate Chinese - Accelerated Track**

(Perm req)

Prerequisite: Must have attained appropriate World Language Placement Test (WLPT) score.
Restriction: Must not have completed CHIN201, CHIN203, CHIN202, or CHIN204.

Accelerated instruction in Mandarin Chinese at the intermediate level for students with prior Chinese language background, either through home use or formal instruction.

0101	Jungjung Lee-Heitz TuTh 12:30pm - 1:45pm	Seats (Total: 15) JMZ 1215

CHIN269A **Special Topics in Study Abroad II; Introduction to Beijing**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269C **Special Topics in Study Abroad II; Modern Chinese Culture and Society I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269D **Special Topics in Study Abroad II; Chinese Conversation**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269J **Special Topics in Study Abroad II; Intermediate Chinese**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269K **Special Topics in Study Abroad II; Intermediate Chinese II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269P **Special Topics in Study Abroad II; The China Phenomenon**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269V **Special Topics in Study Abroad II; Chinese Calligraphy I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269W **Special Topics in Study Abroad II; Chinese Calligraphy II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269Z **Special Topics in Study Abroad II; Modern Chinese Culture and Society**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN301 **Advanced Chinese I**

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in expository and fictional writing with conversation and composition.

Contact department for information to register for this course.

CHIN302 **Advanced Chinese II**

(Perm req)

Prerequisite: CHIN301; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Continuation of CHIN301.

0101	Jungjung Lee-Heitz	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 1122

CHIN307 **Linguistic Landscape of China**

Prerequisite: Must have completed CHIN204 or above; or permission of Chinese Program Advisor.

Comprehensive introduction to Chinese and other major languages in the Sino-Tibetan, Altaic, Austroasiatic, and Austronesian families, all of which are spoken in China. Taught in English.

0101	Minglang Zhou	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JMZ 3120

CHIN315 **Modern Chinese Literature in Translation**

Major works of fiction and drama from 1920 to the present read in the context of social and literary change. Emphasis on western and traditional Chinese influences on the writers and their works. No knowledge of Chinese required.

0101	Belinda Qian He	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 1124

CHIN332 **Chinese Culture through Traditional Chinese Arts**

Study of calligraphy, music, painting, and taichi coupled with critical readings of scholarly and literary texts. Facilitates an understanding of China and Chinese culture through traditional Chinese arts. Taught in English.

0101	Yuli Wang	Seats (Total: 15)
	F 2:00pm - 4:30pm	EDU 1315

CHIN369A **Special Topics in Study Abroad III; China Practicum and Connecting Across Cultures**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369B **Special Topics in Study Abroad III; Advanced Chinese I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369C **Special Topics in Study Abroad III; Advanced Chinese II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369D **Special Topics in Study Abroad III; Advanced Chinese III**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369E **Special Topics in Study Abroad III; Advanced Chinese IV**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369F **Special Topics in Study Abroad III; Advanced Chinese V**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369G **Special Topics in Study Abroad III; Advanced Chinese VI**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369I **Special Topics in Study Abroad III; Advanced Chinese VII**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369J **Special Topics in Study Abroad III; Advanced Chinese VIII**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369M **Special Topics in Study Abroad III; Modern Chinese Culture II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN386 **Experiential Learning**

(Perm req)

Prerequisite: Must have learning proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

CHIN401 **Readings in Modern Chinese I**

Prerequisite: CHIN302; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in history, politics, economics, sociology, and literature. Emphasis on wide-ranging, rapid reading, reinforced by conversations and compositions.

Contact department for information to register for this course.

CHIN402 **Readings in Modern Chinese II**

(Perm req)

Prerequisite: CHIN401; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Continuation of CHIN401.

0101	Mei Kong MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3205

CHIN403 **Classical Chinese I**

(Perm req)

Prerequisite: CHIN302 or CHIN306; or permission of instructor. Additional information: Texts in Chinese. Class discussion and course work mainly in English.

Close readings and discussion of literary, philosophical and historical texts in the original language. The course situates texts in their historical context and also discusses differences between classical and modern Chinese.

0101	Mei Kong MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 3122

CHIN418N **Special Topics in Contemporary Chinese Fiction and Film; Chinese Cinemas and the Underground**

Various approaches to the most recent textual productions of China and Taiwan. Taught in Chinese.

Cross-listed with CINE429U. Credit only granted for CHIN418N or CINE429U. This course digs into the hidden world of film and media across PRC China, Hong Kong, Taiwan, and other diasporic Sinophone areas. Issues tobe explored include cinema's relationship to the Chinese Hell, revolutionary espionage, and tunnel warfare, as well as guerilla filmmaking, media piracy, subversive data mining, and forms of secret voices, forbidden images, and unofficial memories. Taught in English.

0101	Belinda Qian He	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 1103

CHIN425 **Ethnic and Cultural Diversity in China**

Recommended: Any CHIN course or course on China. Credit only granted for: CHIN425 or CHIN429G. Formerly: CHIN429G.

This course looks into ethnic and cultural diversity in China. It examines the evolution of the People's Republic of China's (PRC) ethnic policies in relation to nation-state building over the last six decades. Specifically, it studies how the PRC has categorized the Chinese people into 56 ethnic groups, how it has made affirmative action policies to accommodate ethnic diversity, and what problems its approaches have experienced and what solutions it has proposed in its accommodation of ethnicity and diversity in the 21st century. To examine the above issues, the course introduces and applies the concepts of ethnicity, nationality, ethnic nationalism, civic nationalism, identity, social Darwinism, the Soviet model of multinational state building, the Chinese model of inclusive Chinese nation state building, citizenship, individual rights, group rights, equality, and diversity.

0101	Minglang Zhou	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 1122

CHIN441 **Traditional Chinese Fiction**

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Major works of fiction from the 4th century tales of the marvelous through the 19th century Qing novel. Readings are in classical Chinese and English. Designed for students with advanced language skills. Taught in English.

0101	Andrew Schonebaum	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	JMZ 0205

CHIN499 **Directed Study in Chinese**

(Perm req)

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHIN499A **Directed Study in Chinese; Advanced Chinese V**

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHIN499C **Directed Study in Chinese; Advanced Chinese VI**

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHPH Chemical Physics Spring 2024

CHPH618 **Special Projects in Chemical Physics**

(Perm req)

Independent reading and study covering chemical physics subject areas not available in other courses.

Contact department for information to register for this course.

CHPH709A **Seminar in Chemical Physics; Physical Chemistry**

Current research and developments in chemical physics.

Jointly offered with CHEM889E and CHEM889F. Credit granted for CHPH709 A, CHEM889E, or CHEM889F.

0101	Leah Dodson W 11:00am - 12:15pm	Seats (Total: 55) IPT 1116

CHPH709B **Seminar in Chemical Physics; Statistical Physics**

Current research and developments in chemical physics.

Cross-listed with PHYS709. Credit granted for PHYS709 or CHPH709B.

0101	Pratyush Tiwary Tu 1:15pm - 2:30pm	Seats (Total: 30) IPT 1116

CHPH709L **Seminar in Chemical Physics; Biophysics**

Current research and developments in chemical physics.

Cross-listed with PHYS798L. Credit granted for PHYS798L or CHPH709L.

0101	Arpita Upadhyaya M 4:00pm - 5:30pm	Seats (Total: 20) IPT 1116

CHPH718I **Special Topics in Chemical Physics; Chemical Physics Rotation**

(Perm req)

A discussion of current research problems in chemical physics.

0201	Wendell Hill Contact instructor or department for details.	Seats (Total: 10)

CHPH799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CHPH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

CHPH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CHSE Counseling, Higher Education, and Special Education — Spring 2024

CHSE205 **Disability: From Stigma and Sideshow to Mainstream and Main Street**

Credit only granted for: EDSP289I or CHSE205. Formerly: EDSP289I.

Explores the cultural, historical, educational, and medical roots of difference among human beings and examines the impact of cultural and technological changes on individuals traditionally identified as disabled. The course is designed to develop a broad understanding of the concept of "disability" and the emerging technologies that shape contemporary understanding of this phenomenon and the lives of those considered disabled.

0101	Yewon Lee MW 9:30am - 10:45am	Seats (Total: 60) ESJ 2212
0201	Katryna Andrusik MW 11:15am - 12:30pm	Seats (Total: 40) ESJ 2212

CHSE220 **College and Career Studies**

Prerequisite: CHSE200. Restriction: For students in the TerpsEXCEED program and permission of the TerpsEXCEED Director.

This course is a follow-up to CHSE200 to introduce goal planning and competencies that will lead to the earning of the TerpsEXCEED College and Career Studies Certificate. Students use a planning tool that will be carried through until they earn their College and Career Studies Certificate. Through this course, students will access lessons through the ChoiceMaker Self-Determination transition Curriculum and the ME! Lessons for Self-Advocacy developed by the Zarrow Institute on Transition & Self-Awareness at the University of Oklahoma, and adapted for TerpsEXCEED.

0101	Amy D'Agati, Meredith Gramlich TuTh 9:30am - 10:45am	Seats (Total: 20) SQH 1111

CHSE228B **Common Ground Deliberative Dialogues; Carillon Communities**

Students will explore current societal issues through an intergroup, deliberative dialogue model. The course includes foundations of dialogue, identity reflection, peer leadership, engagement across differences, and dialogic skill-building.

0101	Nikita Kimani	Seats (Total: 16)
	Meets March 25, 2024 - May 9, 2024	
	W 4:00pm - 6:00pm	Location: TBA

CHSE388 **Apprenticeship: Field Experience in a Work Setting**

(Perm req)

Field experiences in approved work settings on campus that match student interest/course of study, with appropriate supervision.

Contact department for information to register for this course.

CHSE389 **Independent Study**

Customized project based on an individual topic area within Counseling, Higher Education and Special Education

Contact department for information to register for this course.

CHSE489 **Internship - Terps Exceed**

Builds on students' individual career exploration process, which determines what types of internships students participate in. It is a fully experiential course that requires on-the-job experiences related to career interests and course of study; an additional semester can involve expansion of a position with new learning tasks or a new position. Students are graded on self-reflections, employer feedback, instructor observations and a final project demonstrating newly gained on-the-job knowledge and an updated career plan.

Contact department for information to register for this course.

CHSE498 **Independent Study**

In collaboration with the approved instructor, students will define the scope of a service or research-based project, create a plan and timeline (with goals and projected outcomes), and present a product that demonstrates outcomes. This could include doing a service project with a Center within CHSE or specific program that aligns with a career interest or passion.

Contact department for information to register for this course.

CINE Cinema and Media Studies Spring 2024

CINE245 **Film Form and Culture**

Cross-listed with: ENGL245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0201	Alan Montroso TuTh 2:00pm - 3:15pm	Seats (Total: 27) TWS 0320	
0301	Alan Montroso TuTh 11:00am - 12:15pm	Seats (Total: 27) TWS 0320	

CINE280 **Film Art in a Global Society**

Cross-listed with: CMLT280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

0101	Caroline Eades MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion
0102	Caroline Eades MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion
0103	Caroline Eades MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion
0104	Caroline Eades MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion

CINE282 **Heroes and Villains in American Film**

Cross-listed with: AMST213. Credit only granted for: AMST213, HONR219F, CINE282 or FILM298V. Formerly: HONR219F, FILM298V.

We will examine the complex, changing, and ever-present representations of heroes and villains in American film. Beginning with a foundational understanding of how heroes and, conversely, villains have been defined through classic Hollywood film, we will explore how these definitions have shifted throughout the 20th and 21st century in various narrative genres, including westerns, war films, film noir, fantasy, science fiction, and, of course, superhero movies. In particular, we will be focusing on how the hero and villain maintain or disrupt specific cultural ideologies concerning race/ethnicity, gender, sexuality, and ability. This course will examine how these various ideologies have evolved throughout the 20th and 21st century, impacting the ways in which heroes and villains are both represented in American film and perceived by diverse audiences. Finally, we will examine our own complicated and sometimes troubling identification with these heroes, even when they might stand in stark contrast to our cultural values and identities.

0101	Susan Pramschufer	Seats (Total: 35)
	TuTh 9:30am - 10:45am	TWS 0223

CINE302 **Cinema History II: The Sound Era**

(Perm req)

Prerequisite: ENGL245, FILM245, or CINE245. Restriction: Must have permission of the Film Studies program. Credit only granted for: CINE302 or FILM302. Formerly: FILM302.

Introduction to the international history of cinema from sound around 1930 to the present.

Priority given to majors in Cinema and Media Studies.

0101	Mauro Resmini	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	ESJ B0322

CINE319F **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Cartoons on the Page and on the Screen**

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: ENGL245, FILM245, CINE245, CINE283, FILM283, or SLLC283; or permission of instructor. Cross-listed with ENGL329B. Credit only granted for CINE319F, FILM319F or ENGL329B.

0101	Paul Cote	Seats (Total: 25)
	MW 12:00pm - 1:50pm	KNI 1105

CINE319G **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Ecomedia**

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: ENGL245, FILM245, SLLC283, CINE245 or FILM283 or CINE283; or permission of instructor.

0101	Oliver Gaycken	Seats (Total: 25)	
	MW 2:00pm - 3:15pm	TWS 1320	

CINE319N **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Introduction to Filmmaking II**

(Perm req)

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: CINE319M or permission of instructor Priority given to majors in Cinema and Media Studies. Expands on filmmaking skills and techniques learned in "Intro to Filmmaking" that revolve around research, production and post-production. Students will work in groups to produce polished 6-10 minute nonfiction narrative works based on a topic of their choosing. Emphasis is on quality research, planning, and carefully executed production. Assignment deliverables (including pitch-decks, treatments, select reels, radio edits, rough drafts, and final edits) and critiques throughout the semester will be in service of the final film project.

0101	Justin Foreman	Seats (Total: 15)	
	W 2:00pm - 3:15pm	JMZ 1205	
	W 3:30pm - 6:00pm	JMZ 1205	Lab

CINE329E **Special Topics in National/International Cinemas; Soviet Film: Soviet Cinema and Culture after Stalin**

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with RUSS398F. Credit only granted for RUSS398F or CINE329E. Provides a survey of post-Stalin Soviet cinema and culture. Examines thecomplexities of Soviet culture and everyday life, exploring the role of art and culture in an ever-shifting Soviet socialist system, and the place of the individual within that system.

0101	Elizabeth Papazian	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 0103

CINE329I **Special Topics in National/International Cinemas; American Jewish Comedy: From the Marx Brothers to "The Marvelous Mrs. Maisel"**

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with JWST319T. Credit only granted for CINE329I or JWST319T. Since the turn of the 20th century, from the films of the Marx Brothers to current tv series, internet shows, and stand-up comics, comedy has served to express Jewish Americanness, and at the same time has defined much of American cultural life in a broad sense. This course will explore comedy as an expression of both American Jewish identity and American culture writ large, across several media: literature, television, film, the internet, graphic literature, stand-up, and theater.

0101	Eric Zakim	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ESJ B0322

CINE329N **Special Topics in National/International Cinemas; Politics and Memory on Screen: A History of Latin American Cinema**

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

0101	Daniel Richter	Seats (Total: 25)
	W 3:30pm - 6:15pm	ESJ B0322

CINE329Z **Special Topics in National/International Cinemas; Cinema and Migration**

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Study of how filmmakers illuminate human migration and complexities of labor, family migration, and diasporic worlds.

0101	Daniel Richter	Seats (Total: 25)
	TuTh 9:30am - 10:45am Class time/details on ELMs	LEF 1201 ONLINE

CINE335 **Transnational Chinese Cinema**

Cross-listed with: ARTH391. Credit only granted for: ARTH391 or CINE335.

Chinese cinema has made a big impact on contemporary world film culture. This course will introduce students to the films directed by some of the most representative filmmakers working in different geopolitical locations (mainland China, Taiwan, Hong Kong) and the Chinese diaspora. The films of these directors, in a spectrum of genres, themes, and styles, have inspired global scholarship, not only in visual culture and cinema, but also in the study of women's issues, gender and ethnic studies, as well as the fields of adaptation and intermedia studies. Students will explore these films in their socio-historical and artistic contexts, considering the influences and innovations that have shaped them and analyzing their reception by audiences and critics. After reading about the films they view, and participating in class discussions, students will be ready to complete their analytical written assignments, for which they will critically examine the films by applying key concepts such as gender, sexuality, race, gaze, style, representation, power, diaspora, etc.

0101	Jason Kuo M 1:00pm - 3:30pm	Seats (Total: 25) ASY 4213A

CINE359Q **Special Topics in Genres/Auteurs/Cinema Movements; The Cinema of Steven Spielberg**

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Prerequisites: ENGL245, FILM245, CINE245, CINE283, FILM283, or SLLC283, or permission of instructor. Cross-listed with ENGL329R. Credit only granted for ENGL329R, CINE359Q, or FILM359Q.

0101	Paul Cote MW 2:00pm - 3:15pm	Seats (Total: 30) TWS 0214

CINE359Z **Special Topics in Genres/Auteurs/Cinema Movements; The Global Western**

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Focuses on the afterlife of the Western, that is, what happened to the genre after its ostensible demise. We will follow its continuation well beyond the 1960s, and examine a certain contradiction in this most American of American film genres. If the Western embodies and expresses American ideals, then why does its afterlife reside to a great extent in non-American spaces and cinemas or as a counter-voice in American culture?

0101	Eric Zakim, Elizabeth Papazian TuTh 12:30pm - 1:45pm	Seats (Total: 30) ESJ B0322

CINE369T **Special Topics in Film Theories; Post-Cinema: Theories of Media and Technological Change**

Examines specific methodologies (structuralism, feminism, postcolonialism, etc.) for the critical analysis of film. The course will also consider the historical development of theoretical concepts. Content varies.

Prerequisite: ENGL245, FILM245, CINE245, CINE283, FILM283, or SLLC283; or permission of instructor. Cross-listed with ENGL329N. Credit only granted for CINE369T or ENGL329N.

0101	Marianne Conroy TuTh 11:00am - 12:15pm	Seats (Total: 25) TWS 1321

CINE388 **Experiential Learning: Cinema and Media Studies**

Connects students' theoretical understanding of film studies, as obtained through the classroom, to professional experience.

Contact department for information to register for this course.

CINE419E **Special Topics in Documentary, Animation, Experimental Cinema, and Other Media; Digital Storytelling with Archives**

(Perm req)

Advanced studies in Documentary, Animation, Experimental Cinema, and Other Media. Examines the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: Instructor permission required. Priority given to majors in Cinema and Media Studies. Cross-listed with MITH498E. Credit only granted for CINE419E or MITH498E. This course explores the practice of digital storytelling with the creative reuse of archival audiovisual materials. Students will write a media autobiography about their relationship to media throughout their lives (film, TV, radio, the internet, cell phones, video games, and more). One entry will be turned into a final media project - either a short documentary film, video essay, podcast, or digital exhibit - utilizing archival footage from select sources.

0101	Stephanie Sapienza	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	JMZ 1103

CINE429U **Special Topics in National/International Cinemas; Chinese Cinemas and the Underground**

Courses in National/International Cinemas may examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with CHIN418N. Credit only granted for CHIN418N or CINE429U. This course digs into the hidden world of film and media across PRC China, Hong Kong, Taiwan, and other diasporic Sinophone areas. Issues tobe explored include cinema's relationship to the Chinese Hell, revolutionary espionage, and tunnel warfare, as well as guerilla filmmaking, media piracy, subversive data mining, and forms of secret voices, forbidden images, and unofficial memories. Taught in English.

0101	Belinda Qian He	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 1103

CINE431 **Italian Cinema II (In Translation)**

Cross-listed with: ITAL473. Credit only granted for: ITAL473, CINE431 or FILM431. Formerly: FILM431.

A study of Italian society and culture through the medium of film from the mid 1970's to the present. Taught in English.

0101	Mauro Resmini	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 3205

CINE499 **Directed Study in Cinema and Media Studies**

Readings and Research in Film Studies under faculty supervison.

Contact department for information to register for this course.

CLAS Classics Spring 2024

CLAS170 **Ancient Myths and Modern Lives**

Cross-listed with: RELS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Francisco Barrenechea MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 PLS 1162	Discussion
0102	Francisco Barrenechea MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PHY 4222	Discussion
0103	Francisco Barrenechea MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 LEF 1171	Discussion
0104	Francisco Barrenechea MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 PLS 1168	Discussion
0105	Francisco Barrenechea MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PLS 1158	Discussion
0106	Francisco Barrenechea MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 WDS 1102	Discussion
0107	Francisco Barrenechea MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 PLS 1115	Discussion
0108	Francisco Barrenechea MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PLS 1115	Discussion

0109	Francisco Barrenechea MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 HBK 1112	Discussion

CLAS180 **Discovering the World of Ancient Greece**

An exploration of the cultural traits and developments of ancient Greek civilization and its forerunners, from the Bronze Age Mycenaeans and Minoans, through the rise of the classical Greek city-states, to the expansion of Greek cultural influence in the wake of the conquests of Alexander the Great. Drawing upon the evidence of the archaeological remains as well as ancient historical and literary documents, students gain a basic familiarity with the principal monuments and artifacts of classical Greek civilization, the various institutions and values that characterized the Greeks, and the significant historical events that transformed the culture over the course of antiquity.

0101	Jorge Bravo TuTh 11:00am - 12:15pm	Seats (Total: 35) SQH 1121	

CLAS276 **Are We Rome?**

Credit only granted for: CLAS276 or CLAS289A. Formerly: CLAS289A.

America, from its very origins as an independent nation, saw itself as the new Rome: its system of government is built on Roman precedents, its national buildings look as if they came from the Roman Forum, and its leisure activities take us to stadiums modeled on the Colosseum. America's relationship to Rome, however, raises its greatest anxiety: will America fall as Rome did? In 1776, the year of American independence, Edward Gibbon published his History of the Decline and Fall of the Roman Empire; America has been thinking about the trajectory of its history alongside Rome's from the very beginning.

0101	Eric Adler Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) ONLINE SKN 1115	Discussion
0102	Eric Adler Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) ONLINE JMZ 1124	Discussion
0103	Eric Adler Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 25) ONLINE JMZ 1122	Discussion
0104	Eric Adler Class time/details on ELMs Th 9:30am - 10:20am	Seats (Total: 25) ONLINE TYD 0111	Discussion

0105	Eric Adler Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 25) ONLINE SKN 1115	Discussion
0106	Eric Adler Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 25) ONLINE PLS 1115	Discussion

CLAS316 **Classical Antiquity and the Cinema**

Cross-listed with: CINE316. Credit only granted for: CLAS316 or CINE316.

Many films, while rooted in the time and place in which they were created, draw upon themes and stories from ancient Greek and Roman literature. While the filmmakers' understandings of modern social forces affect their representations of the ancient world, the ancient works also shape the ways in which filmmakers tell their stories. Film criticism and close reading complement each other in the analysis of films and the ancient works on which they are based.

0101	Chiara Graf TuTh 9:30am - 10:45am	Seats (Total: 35) TYD 1101

CLAS320 **Women in Classical Antiquity**

Cross-listed with: HIST328W, WGSS320. Credit only granted for: CLAS320, WMST320, WGSS320 or HIST328W.

A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal, and artistic evidence; special emphasis in women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

0101	Chiara Graf TuTh 2:00pm - 3:15pm	Seats (Total: 35) ESJ B0320

CLAS321 **Science & Society in Ancient Greece & Rome**

How did ancient Greek and Roman scientific practices differ from and resemble our own? How do we as historians recognize when someone is conducting scientific inquiry? What were the social and cultural contexts of scientific production in the ancient world? With a focus on the scientific practices and products of ancient Greeks and Romans from around the fifth century BCE to the second century CE, we investigate how several scientific disciplines -- including medicine, astronomy, and biology -- developed under the influence of ancient social and cultural contexts, and how ancient literatures, in turn, were shaped by those working in scientific fields of inquiry. In addressing these questions special attention will be paid to the methods employed by the available sources of ancient scientists and the modes of demonstration, argumentation, and rhetoric employed in scientific texts. Readings of primary materials will be supplemented with selections of secondary scholarship.

0101	Peter Osorio	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	WDS 1114

CLAS322 **Roman Freedpersons**

The literary remains of three Roman freedpersons--the editor and biographer Tiro (c. 80-4 BCE), the poet and fabulist Phaedrus (fl. 1st cen. CE), and the philosopher Epictetus (c. 55-135 CE)--give us a rare glimpse into the internal experience of persons enslaved and emancipated by Roman elites. To contextualize these experiences, we study the legal basis of Roman slavery, epigraphic self-representations, and stereotyping representations of freedpersons by free authors. We also read our authors against comparable works by freeborn analogues--the senator Cicero, the poet Horace, and the philosopher Seneca--to test the boundaries of how the identity of libertus ("freedman") affected and failed to affect our authors' literary aims. To deepen our study of how historical conditions shape the creation of freed authorship and the transmission of freed authors, we also read, and consider the conditions surrounding the publication of, American freedpersons' literature.

0101	Peter Osorio	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	KEY 0102

CLAS340 **Ancient Slavery and its American Impacts**

Cross-listed with: HIST339J. Credit only granted for: CLAS340 or HIST339J.

Interrogates how slavery permeated the ancient Mediterranean societies of Greece and Rome. We will pay particular attention to how hierarchical inequalities are institutionalized, experienced, and represented and to how different marginalized and dominant groups interacted. Enslaved persons performed necessary labor in Greece and Rome and their work was essential for the formation of ancient society in agriculture, mining, domestic spaces, literature, finance, and government. Studying ancient slavery offers a chance to examine Greece and Rome from the bottom up, parsing the scant literary and material evidence for the lives and struggles of enslaved persons. We will practice several different approaches in order to tease out the systematic, economic, political, and personal effects of slavery in the ancient world. The United States of America was also founded as a slave society, and discussions of slavery in the Americas often look back to the ancient Mediterranean. The course will therefore conclude with a unit on how enslavers and abolitionists in the United States utilized and responded to slavery in antiquity.

0101	Katherine Wasdin	Seats (Total: 35)
	MW 10:00am - 11:15am	SKN 1115

CLAS499 **Independent Study in Classical Languages and Literatures**

(Perm req)

Contact department for information to register for this course.

CLAS699 **Independent Study in Classical Civilization**

0401	Lillian Doherty	Seats (Total: 1)
	Contact instructor or department for details.	

CLFS608 **Seminar in Current Topics in Chemical and Life Science; Scholarly Paper**

(Perm req)

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact Dr. Marcia Shofner (mclfs@umd.edu) to establish a mentor; and then contact exst@umd.edu to register. Golden ID students are not eligible for this course.

Contact department for information to register for this course.

CLFS608A **Seminar in Current Topics in Chemical and Life Science; Independent Research**

(Perm req)

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact exst@umd.edu to register. Golden ID students are not eligible for this course.

Contact department for information to register for this course.

CLFS609L **Special Topics; Beyond Race: Human Biological Diversity**

Individual instruction course. Contact Program Director or instructor before registering.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.

PLC1	Joelle Presson	Seats (Total: 5)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.	

CLFS619B **Special Topics in Chemistry; Environmental Chemistry**

Topics of current interest and special importance.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.

PLC1	Marjan Alaghmand	Seats (Total: 15)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.	

CLFS665 **Ecology and Global Change**

Credit only granted for: LFSC609C or LFSC665. Formerly: LFSC609C.

Ecological concepts across scales ranging from the individual, to populations, communities, ecosystems, and landscapes will be presented. Global change issues will encompass alteration of atmospheric trace gases, biogeochemistry cycles, land use changes, and introduction of non-native species to new habitats.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.

Click here for more course information.

PLC1	Marcia Shofner	Seats (Total: 15)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.	

CLFS690 **Biochemistry**

An advanced overview of general biochemistry including a study of protein structure and their physical properties; how these properties relate to catalysis, regulation of catalysis and metabolic chemistry with respect to their relationship to physiological conditions.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.

Click here for more course information.

PLC1	David Jollie	Seats (Total: 15)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this course.	

CMLT Comparative Literature Spring 2024

CMLT235 **Black Diaspora Literature and Culture**

Examination of key works by writers of the African Diaspora. Relationship among black people across multiple geographic spaces; Africa, the Caribbean, the United States, Europe, Latin America, and Asia. Specific historical, cultural, and literary contexts; themes such as gender, sexuality, migration, slavery, freedom, and equality. Readings may include literary texts (fiction, poetry, drama), music and film. All readings in English, but drawn from multiple languages of the black diaspora, including English, Spanish, French and Portuguese.

0101	Anthony Batts MWF 2:00pm - 2:50pm	Seats (Total: 30) KEY 0121	

CMLT270 **Global Literature and Social Change**

Comparative study of literature through selected literary works from several non-Western cultures, viewed cross-culturally in light of particular social, political, and economic perspectives.

0201	Daniel Sidman TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0201	
0301	Ariana Nash TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1106	

CMLT275 **World Literature by Women**

Cross-listed with: WGSS275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0101	Xiaofang Huang MWF 11:00am - 11:50am	Seats (Total: 30) TWS 0234	

CMLT277 **Literatures of the Americas**

Comparative study of several North, South, and Central American cultures with a focus on the specificities, similarities, and divergences of their literary and cultural texts.

0101	Nahid Ahmadian MW 5:00pm - 6:15pm	Seats (Total: 30) TWS 0214	

CMLT280 **Film Art in a Global Society**

Cross-listed with: CINE280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

Cross-listed with FILM298D. Credit only granted for: CMLT280 or FILM298D.

0101	Caroline Eades MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion

0102	Caroline Eades MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion
0103	Caroline Eades MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion
0104	Caroline Eades MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 TWS 0221	 Discussion

CMLT386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-English department.

Contact department for information to register for this course.

CMLT398C **Special Topics in Comparative Studies; Cinema of Liberation**

Special topics in comparitive studies.

Cross-listed with ENGL329A. Credit granted for CMLT398C or ENGL329A. Repeatable to 9 credits if content differs.

0201	Mike Kolakoski Class time/details on ELMs	Seats (Total: 25) ONLINE	

CMLT398D **Special Topics in Comparative Studies; The Jazz Paradigm**

Special topics in comparitive studies.

Cross-listed with ENGL379R. Credit granted for CMLT398D or ENGL379R.

0201	Dennis Winston Class time/details on ELMs	Seats (Total: 25) ONLINE	

CMLT679D **Topics in Comparative Studies; Sex, Gender, and Sexuality in the Islamic World**

Seminar in modern and contemporary literature: as announced.

Cross-listed with HIST419C, PERS498M, PERS689M, RELS429B, WGSS498D, and WGSS698D. Credit granted for CMLT679D, HIST419C, PERS498M, PERS689M, RELS429B, WGSS498D, or WGSS698D.

0101	Matthew Miller Th 12:30pm - 3:15pm	Seats (Total: 14) JMZ 1123	

CMLT679M **Topics in Comparative Studies; Caribbean Critical Theory**

(Perm req)

Seminar in modern and contemporary literature: as announced.

Restriction: Permission of English Department. Repeatable to 9 credits if content differs. Cross-listed with ENGL658D. Credit only granted for ENGL658D or CMLT679M.

0101	John Drabinski	Seats (Total: 14)
	Tu 6:30pm - 9:00pm	TWS 3252

CMLT699 **Independent Study**

(Perm req)

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member.

Contact department for information to register for this course.

CMLT799 **Master's Thesis Research**
Contact department for information to register for this course.

CMLT898 **Pre-Candidacy Research**
Contact department for information to register for this course.

CMLT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CMSC Computer Science Spring 2024

CMSC100 **Bits and Bytes of Computer and Information Sciences**

Restriction: For first time freshmen and first time transfer students; or permission of CMNS-Computer Science department. Cross-listed with: INST101. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0201	Noah Owens	Seats (Total: 40)
	F 12:00pm - 12:50pm	IRB 2207

CMSC106 **Introduction to C Programming**

Prerequisite: MATH115. Restriction: Must not be in Computer Science program; and must not have completed any courses from CMSC131-499 course range. Credit only granted for: CMSC106 or CMSC122.

Design and analysis of programs in C. An introduction to computing using structured programming concepts. Intended for students with no or minimal programming experience.

0101	Ilchul Yoon MWF 11:00am - 11:50am MW 4:00pm - 4:50pm	Seats (Total: 50) IRB 1207 CSI 1121	 Discussion

CMSC115 **Gender, Race and Computing**

Restriction: Must not have taken CMSC216 or higher. Cross-listed with: WGSS115. Credit only granted for: WGSS115 or CMSC115.

Race and gender have shaped computing from its earliest histories to contemporary debates over bias in search algorithms, surveillance, and AI. As computational processes shape ever more dimensions of everyday life from the personal to the global scale, understanding how they operate and how power operates within them grows ever more important. Combating racism and sexism is not as simple as ensuring the pool of programmers and engineers is more diverse; structures of power are embedded in digital technologies as they are in all aspects of our society, and we must learn to perceive their operation if we hope to transform them. We will examine how racism and sexism operate in the field of computer science and in everyday uses of digital technologies, while studying how feminist and racial justice movements have created alternative approaches. This class is for anyone who wishes to better understand the relationships between digital technology, structural power, and social justice.

0101	Alexis Lothian, Jennifer Manly MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 23) IRB 2207 IRB 2207	 Discussion
0102	Jennifer Manly, Alexis Lothian MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 21) IRB 2207 IRB 2207	 Discussion

CMSC116 **You and I, and Generative AI**

Restriction: Must not have completed CMSC216 or higher.

This course explores whether and how generative AI can be developed to support human values and promote human autonomy, and how the context of the deployment of AI may impact answers to this question. Entire industries are being transformed by AI technology, much of which is driven by the recent meteoric advances in generative AI. These advances have enabled many people to do things they previously were incapable of but have also brought about a series of ethical questions around their development and use. These developments raise fundamental questions around whether it is even possible to develop generative AI technology that empowers rather than replaces people, and which serves human values such as rights, justice, and dignity. It also raises the question: Is generative AI different from other technologies that can be used toward both positive and negative ends?

Restriction: Must not have completed CMSC216 or higher.

0101	Hal Daume MW 2:00pm - 3:15pm	Seats (Total: 120) ESJ 2208	

CMSC122 **Introduction to Computer Programming via the Web**

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: CMSC106, or CMSC122.

Introduction to computer programming in the context of developing full featured dynamic web sites. Uses a problem solving approach to teach basics of program design and implementation using JavaScript; relates these skills to creation of dynamic web sites; then explores both the potential and limits of web-based information sources for use in research. Intended to help relate a student's major to these emerging technologies.

0101	Aaron Kyei-Asare MWF 12:00pm - 12:50pm	Seats (Total: 96) IRB 1116	

CMSC125 **Introduction to Computing**

Prerequisite: Must have completed or be concurrently enrolled in MATH115 or higher. Restriction: Must not be in the Computer Science program; and must not have completed any courses from CMSC131-499; and must not have completed BMGT302, IMDM127 or INST126. Credit only granted for: IMDM127 or CMSC125.

Introduces you to the computing field as a whole. You will gain skills used across the spectrum of computing majors and learn about the great variety of routes into the various areas of study and employment in technological fields.

0101	Elias Gonzalez MW 2:00pm - 3:15pm	Seats (Total: 96) IRB 1116	

CMSC131 **Object-Oriented Programming I**

Corequisite: MATH140. Credit only granted for: CMSC131, CMSC133 or CMSC141.

Introduction to programming and computer science. Emphasizes understanding and implementation of applications using object-oriented techniques. Develops skills such as program design and testing as well as implementation of programs using a graphical IDE. Programming done in Java.

0101	Pedram Sadeghian MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 34) HJP 0226 CSI 2118	 Discussion
0102	Pedram Sadeghian MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	Seats (Total: 34) HJP 0226 CSI 2118	 Discussion

0103	Pedram Sadeghian MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	Seats (Total: 34) HJP 0226 CSI 2120	Discussion
0104	Pedram Sadeghian MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 34) HJP 0226 CSI 2118	Discussion
0105	Pedram Sadeghian MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 34) HJP 0226 CSI 2120	Discussion
0106	Pedram Sadeghian MWF 11:00am - 11:50am TuTh 12:30pm - 1:20pm	Seats (Total: 34) HJP 0226 CSI 2118	Discussion
0201	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 34) HJP 0226 CSI 2118	Discussion
0202	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 34) HJP 0226 CSI 2107	Discussion
0203	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) HJP 0226 CSI 2107	Discussion
0204	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) HJP 0226 CSI 3118	Discussion
0205	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 34) HJP 0226 CSI 2107	Discussion
0206	Pedram Sadeghian MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 34) HJP 0226 CSI 3118	Discussion

CMSC132 Object-Oriented Programming II

Prerequisite: Minimum grade of C- in CMSC131; or must have earned a score of 5 on the A Java AP exam; or must have earned a satisfactory score on the departmental placement exam; and minimum grade of C- in MATH140. Credit only granted for: CMSC132 or CMSC142.

Introduction to use of computers to solve problems using software engineering principles. Design, build, test, and debug medium -size software systems and learn to use relevant tools. Use object-oriented methods to create effective and efficient problem solutions. Use and implement application programming interfaces (APIs). Programming done in Java.

0101	Ilchul Yoon MWF 12:00pm - 12:50pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0102	Ilchul Yoon MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0103	Ilchul Yoon MWF 12:00pm - 12:50pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0104	Ilchul Yoon MWF 12:00pm - 12:50pm MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0105	Ilchul Yoon MWF 12:00pm - 12:50pm MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0106	Ilchul Yoon MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0107	Ilchul Yoon MWF 12:00pm - 12:50pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0201	Larry Herman MWF 1:00pm - 1:50pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 2107	Discussion

0202	Larry Herman MWF 1:00pm - 1:50pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0203	Larry Herman MWF 1:00pm - 1:50pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0204	Larry Herman MWF 1:00pm - 1:50pm MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0205	Larry Herman MWF 1:00pm - 1:50pm MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 1121	 Discussion
0206	Larry Herman MWF 1:00pm - 1:50pm MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 1122	 Discussion
0208	Larry Herman MWF 1:00pm - 1:50pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion
0301	Larry Herman MWF 2:00pm - 2:50pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion
0302	Larry Herman MWF 2:00pm - 2:50pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion
0303	Larry Herman MWF 2:00pm - 2:50pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 3118	 Discussion
0304	Larry Herman MWF 2:00pm - 2:50pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion

0305	Larry Herman MWF 2:00pm - 2:50pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0306	Larry Herman MWF 2:00pm - 2:50pm MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 1121	Discussion
0307	Larry Herman MWF 2:00pm - 2:50pm MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0401	Elias Gonzalez MW 3:30pm - 4:45pm MW 8:00am - 8:50am	Seats (Total: 37) IRB 0324 IRB 2207	Discussion
0402	Elias Gonzalez MW 3:30pm - 4:45pm MW 9:00am - 9:50am	Seats (Total: 37) IRB 0324 IRB 2207	Discussion
0403	Elias Gonzalez MW 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 37) IRB 0324 CSI 3120	Discussion
0404	Elias Gonzalez MW 3:30pm - 4:45pm MW 12:00pm - 12:50pm	Seats (Total: 37) IRB 0324 CSI 3120	Discussion
0405	Elias Gonzalez MW 3:30pm - 4:45pm MW 1:00pm - 1:50pm	Seats (Total: 37) IRB 0324 CSI 3120	Discussion
0406	Elias Gonzalez MW 3:30pm - 4:45pm MW 2:00pm - 2:50pm	Seats (Total: 37) IRB 0324 CSI 2118	Discussion
0407	Elias Gonzalez MW 3:30pm - 4:45pm MW 2:00pm - 2:50pm	Seats (Total: 37) IRB 0324 CSI 3120	Discussion

0408	Elias Gonzalez MW 3:30pm - 4:45pm MW 1:00pm - 1:50pm	Seats (Total: 37) IRB 0324 IRB 2107	 Discussion

CMSC142 **Programming with Purpose II: Data Structures and Algorithms**

Prerequisite: Minimum grade of C- in CMSC141 and MATH140. Credit only granted for: CMSC132 or CMSC142.

Introduction to use of computers to solve problems using software engineering principles. The course will focus on the central idea of an interface (e.g. an application programming interface, or API) and how to conceptualize, design, implement, and test interfaces. Common data structures will introduced along with their expected interfaces. Programming done in Python.

0101	Jose Calderon MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 50) IRB 0318 IRB 2207	 Discussion

CMSC216 **Introduction to Computer Systems**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC132; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission of CMSC - Computer Science department.

Introduction to the interaction between user programs and the operating system/hardware. Major topics include C programming, introductory systems programming, and assembly language. Other concepts covered include UNIX, machine data representation, thread management, optimization, and virtual memory. Programming is done in the Linux Environment.

0101	Christopher Kauffman TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 37) IRB 0324 CSI 2118	 Discussion
0102	Christopher Kauffman TuTh 9:30am - 10:45am MW 1:00pm - 1:50pm	Seats (Total: 37) IRB 0324 CSI 2107	 Discussion
0103	Christopher Kauffman TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 38) IRB 0324 CSI 2118	 Discussion

0104	Christopher Kauffman TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 38) IRB 0324 CSI 2118	Discussion
0105	Christopher Kauffman TuTh 9:30am - 10:45am MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 2118	Discussion
0106	Christopher Kauffman TuTh 9:30am - 10:45am MW 2:00pm - 2:50pm	Seats (Total: 38) IRB 0324 CSI 2107	Discussion
0107	Christopher Kauffman TuTh 9:30am - 10:45am MW 3:00pm - 3:50pm	Seats (Total: 37) IRB 0324 CSI 2107	Discussion
0201	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 8:00am - 8:50am	Seats (Total: 38) IRB 0324 CSI 3118	Discussion
0202	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 38) IRB 0324 IRB 2207	Discussion
0203	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 38) IRB 0324 IRB 2107	Discussion
0204	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 37) IRB 0324 CSI 3118	Discussion
0205	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 37) IRB 0324 CSI 2118	Discussion
0206	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 2107	Discussion

0207	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	Seats (Total: 38) IRB 0324 CSI 2107	Discussion
0208	Nelson Padua-Perez TuTh 11:00am - 12:15pm MW 2:00pm - 2:50pm	Seats (Total: 37) IRB 0324 CSI 1121	Discussion
0301	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 34) ESJ 0224 CSI 1122	Discussion
0302	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 35) ESJ 0224 IRB 1207	Discussion
0303	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 38) ESJ 0224 CSI 1122	Discussion
0304	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 3:00pm - 3:50pm	Seats (Total: 34) ESJ 0224 CSI 1122	Discussion
0305	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 4:00pm - 4:50pm	Seats (Total: 34) ESJ 0224 CSI 1122	Discussion
0306	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 34) ESJ 0224 CSI 2120	Discussion
0307	Christopher Kauffman TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 35) ESJ 0224 CSI 3118	Discussion

CMSC250 **Discrete Structures**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permissions of CMSC - Computer Science department.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

0101	Fawzi Emad MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0102	Fawzi Emad MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0103	Fawzi Emad MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0104	Fawzi Emad MWF 10:00am - 10:50am TuTh 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 3120	Discussion
0105	Fawzi Emad MWF 10:00am - 10:50am TuTh 5:00pm - 5:50pm	Seats (Total: 36) IRB 0324 CSI 2120	Discussion
0106	Fawzi Emad MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0107	Fawzi Emad MWF 10:00am - 10:50am TuTh 3:30pm - 4:20pm	Seats (Total: 36) IRB 0324 CSI 3120	Discussion
0108	Fawzi Emad MWF 10:00am - 10:50am TuTh 11:00am - 11:50am	Seats (Total: 36) IRB 0324 KEB 1200	Discussion

0201	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	IRB 0324 CSI 1121	Discussion
0203	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	IRB 0324 IRB 2107	Discussion
0204	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	IRB 0324 IRB 2207	Discussion
0205	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 3:30pm - 4:20pm	IRB 0324 CSI 2118	Discussion
0206	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 12:30pm - 1:20pm	IRB 0324 CSI 3120	Discussion
0207	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	IRB 0324 CSI 2120	Discussion
0208	Fawzi Emad	Seats (Total: 36)	
	MWF 11:00am - 11:50am TuTh 3:30pm - 4:20pm	IRB 0324 CSI 2120	Discussion
0301	Paul Kline	Seats (Total: 36)	
	TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	ESJ 0224 CSI 2120	Discussion
0302	Paul Kline	Seats (Total: 34)	
	TuTh 3:30pm - 4:45pm MW 12:00pm - 12:50pm	ESJ 0224 CSI 2120	Discussion
0303	Paul Kline	Seats (Total: 36)	
	TuTh 3:30pm - 4:45pm MW 2:00pm - 2:50pm	ESJ 0224 CSI 2120	Discussion

0304	Paul Kline TuTh 3:30pm - 4:45pm MW 3:00pm - 3:50pm	Seats (Total: 34) ESJ 0224 CSI 2120	 Discussion
0305	Paul Kline TuTh 3:30pm - 4:45pm MW 3:00pm - 3:50pm	Seats (Total: 34) ESJ 0224 CSI 2118	 Discussion
0306	Paul Kline TuTh 3:30pm - 4:45pm MW 4:00pm - 4:50pm	Seats (Total: 34) ESJ 0224 CSI 2120	 Discussion

CMSC250H **Discrete Structures**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permissions of CMSC - Computer Science department.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141; and permission of CMNS-Computer Science department.

0101	William Gasarch TuTh 12:30pm - 1:45pm MW 10:00am - 10:50am	Seats (Total: 30) IRB 2107 IRB 2107	 Discussion

CMSC298A **Special Topics in Computer Science**

(Perm req)

A course designed to allow a lower level student to pursue a specialized topic or project.

Contact department for information to register for this course.

CMSC320 **Introduction to Data Science**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC320, DATA320 or STAT426.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Fardina Alam TuTh 12:30pm - 1:45pm	Seats (Total: 244) HJP 0226	
0201	Mohammad Nayeem Teli TuTh 2:00pm - 3:15pm	Seats (Total: 244) IRB 0324	

CMSC330 **Organization of Programming Languages**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in the Computer Science Minor program; or must be in Engineering: Computer program; and Permission of CMSC - Computer Science department.

A study of programming languages, including their syntax, semantics, and implementation. Several different models of languages are discussed, including dynamic, scripting (e.g., Ruby, Python) functional (e.g., OCaml, Haskell, Scheme), and memory safe systems programming (e.g., Rust). Explores language features such as formal syntax, scoping and binding of variables, higher-order programming, typing, and type polymorphism. Introduces finite automata, context free grammar, parsing, lambda calculus, and basics of security attacks and software security.

0101	Anwar Mamat TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 34) HJP 0226 CSI 1121	 Discussion
0102	Anwar Mamat TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 34) HJP 0226 CSI 1121	 Discussion
0103	Anwar Mamat TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 36) HJP 0226 CSI 2120	 Discussion
0104	Anwar Mamat TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 36) HJP 0226 CSI 1121	 Discussion
0105	Anwar Mamat TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 36) HJP 0226 CSI 1122	 Discussion

0106	Anwar Mamat TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 36) HJP 0226 CSI 1121	Discussion
0107	Anwar Mamat TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 36) HJP 0226 CSI 1121	Discussion
0201	Anwar Mamat TuTh 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0202	Anwar Mamat TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0203	Anwar Mamat TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 1122	Discussion
0204	Anwar Mamat TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0205	Anwar Mamat TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0206	Anwar Mamat TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0207	Anwar Mamat TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 2118	Discussion
0208	Anwar Mamat TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 36) IRB 0324 CSI 1122	Discussion

0301	Cliff Bakalian TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 36) CSI 1115 CSI 2118	 Discussion
0302	Cliff Bakalian TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 36) CSI 1115 CSI 2107	 Discussion
0303	Cliff Bakalian TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 36) CSI 1115 CSI 2120	 Discussion
0304	Cliff Bakalian TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 36) CSI 1115 CSI 2120	 Discussion
0401	Cliff Bakalian TuTh 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion
0402	Cliff Bakalian TuTh 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 2120	 Discussion
0403	Cliff Bakalian TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion
0404	Cliff Bakalian TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion
0405	Cliff Bakalian TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0406	Cliff Bakalian TuTh 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion

0407	Cliff Bakalian TuTh 3:30pm - 4:45pm F 3:00pm - 3:50pm	Seats (Total: 36) IRB 0324 CSI 3120	 Discussion
0408	Cliff Bakalian TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 2118	 Discussion

CMSC335 **Web Application Development with JavaScript**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science Department. Credit only granted for: CMSC389N or CMSC335. Formerly: CMSC389N.

Provides an introduction to modern ways of developing Web Applications/Services using JavaScript for both front-end and back-end. The course covers topics on fundamental JavaScript language constructs, server-side JavaScript, back-end data persistence, and client-side JavaScript to build Web Applications that interact with Web services and back-end databases.

0101	Nelson Padua-Perez TuTh 3:30pm - 4:45pm	Seats (Total: 334) ESJ 0202

CMSC351 **Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Justin Wyss-Gallifent MWF 9:00am - 9:50am	Seats (Total: 334) ESJ 0202
0201	Maksym Morawski MWF 10:00am - 10:50am	Seats (Total: 310) ESJ 0202
0301	Maksym Morawski MWF 11:00am - 11:50am	Seats (Total: 334) ESJ 0202

CMSC351H **Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Auguste Gezalyan MWF 12:00pm - 12:50pm	Seats (Total: 38) IRB 2107

CMSC388J **Special Topics in Computer Science; Building Secure Web Applications**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Explores tools such as Python, Flask, Django, MongoDB, Svelte, and React

0101	Michael Marsh F 3:00pm - 3:50pm	Seats (Total: 57) CSI 2117

CMSC389G **Special Topics in Computer Science; What to do After Landing a SWE Job**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department. Students are given a scoped experience of a Software Engineering industry job and relevant tools/practices to accelerate acclimation to a future SWE Intern or Full-Time role. Topics/Skills covered include: Git, Code Reviews, AWS basics, Design Docs, unit testing, virtual machines, etc. Students will contribute to a complex code base to simulate designing, implementing, and testing new features in a professional setting.

0101	Alan Sussman, David Mount F 1:00pm - 1:50pm	Seats (Total: 34) CSI 2120

CMSC389O **Special Topics in Computer Science; The Coding Interview**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Technical interviewing is a critical skill for acquiring internships and jobs. Students will gain a comprehensive, practical introduction to technical interviews. Students will be introduced to basic topics such as Big O and String Manipulation and later move into more complex topics such as Graphs and Dynamic Programming. Most in-class time will be spent on mock interviews to give real interview practice. The course facilitators are experienced in interviewing and have received internship/job offers from companies like Meta, Optiver, Bloomberg, Amazon, Apple, Microsoft, Databricks, Capital One, and more.

0101	Thomas Goldstein F 11:00am - 11:50am	Seats (Total: 30) CSI 3118
0201	Thomas Goldstein F 12:00pm - 12:50pm	Seats (Total: 30) CSI 3118
0301	Thomas Goldstein F 1:00pm - 1:50pm	Seats (Total: 30) CSI 3118
0401	Thomas Goldstein F 2:00pm - 2:50pm	Seats (Total: 30) CSI 3118
0501	Thomas Goldstein F 3:00pm - 3:50pm	Seats (Total: 30) CSI 3118

CMSC389P **Special Topics in Computer Science; Mastering the PM Interview**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Product Management is an interesting intersection of technology and business that students are given the opportunity to learn more about in this class. Students are introduced to the tools, techniques, and resources to nail their PM (Product Management) interviews. We'll be providing hands-on practice with PM specific topics including product design, analytical, and case questions. By the end of the class, you should be acing all your PM interviews!

0101	Huaishu Peng W 5:00pm - 5:50pm	Seats (Total: 30) IRB 2107

CMSC390 **Honors Paper**

(Perm req)

Restriction: Must be admitted to the Computer Science Honors Program.

Special study or research directed toward preparation of honors paper.

Contact department for information to register for this course.

CMSC396H **Computer Science Honors Seminar**

(Perm req)

Prerequisite: Must have admission into Computer Science Departmental Honors Program. Restriction: Permission of CMNS-Computer Science department.

Overview of computer science research activities, techniques, and tools. Diverse research areas will be covered, including systems, networks, artificial intelligence, human-computer interaction, software engineering, graphics, vision, and theory.

0101	Dave Levin W 1:00pm - 1:50pm	Seats (Total: 50) IRB 1207

CMSC398E **Special Topics in Computer Science; Essential Data Science Skills & Techniques**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Students will learn the tools and techniques needed to succeed in the field of data science. They will engage in simulations that allow them to develop SQL/R coding skills, and learn how to effectively present these findings. They will also utilize analytical thinking to solve real-world data science problems.

0101	Justin Wyss-Gallifent F 1:00pm - 1:50pm	Seats (Total: 41) IRB 2207

CMSC398L **Special Topics in Computer Science; Introduction to Competitive Programming**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Covers most of the basic techniques and algorithms that are used in competitive programming. Topics include C++ STL, greedy, dynamic programming,divide and conquer, graph algorithms, and data structures. Students will learn different algorithmic techniques and apply these concepts to solve interesting programming problems in practice.

0101	Laxman Dhulipala F 11:00am - 11:50am	Seats (Total: 30) CSI 3120

CMSC398M **Special Topics in Computer Science; Introduction to Product Design with Figma**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250 or permission of instructor; and permission of CMNS-Computer Science department An exploration into the world of Figma! Figma is a popular collaborative design tool used by many developers for brainstorming, proof of concepts and website/application design. We will be exploring the various capabilities of Figma, and how we can create a website or mobile application from a design made on Figma. Students will learn principles of design, create mockups, and build their own website/mobile app that will look great for resumes and portfolios. Permission of department

0101	Cliff Bakalian W 2:00pm - 2:50pm	Seats (Total: 35) IRB 2107

CMSC398Q **Special Topics in Computer Science; Secure Communication**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department. Covers basic topics in cryptography and explains how those topics are applied to modern forms of communication. We will cover messaging protocols and modern texting apps such as iMessage, Whatsapp, Signal, and more. We will also discuss ways of communicating with other forms of media such as audio and video. Finally, time-permitting, we will discuss the basics of quantum cryptography, and where current research in that field is headed.

0101	Ian Miers F 12:00pm - 12:50pm	Seats (Total: 30) CSI 3120

CMSC398R **Special Topics in Computer Science; Binary Exploitation**

(Perm req)

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216; and permission of CMNS-Computer Science department. An introduction to exploiting common vulnerabilities in compiled applications. Topics include an overview of C, intro to x86 assembly, buffer overflows on stack and heap, format string bugs, heap exploitation, and other special topics (kernel/browser/blockchain). Students will be able to write exploits for all the bugs learned in class, and secure their own applications.

0101	Tudor Dumitras F 4:00pm - 4:50pm	Seats (Total: 40) CSI 1121

CMSC401 **Algorithms for Geospatial Computing**

Prerequisite: GEOG276; or a minimum grade of C- in CMSC330 and CMSC351; or permission of instructor. Cross-listed with: GEOG470. Jointly offered with: GEOG770. Credit only granted for: CMSC498Q, CMSC401, CMSC788I, GEOG470, GEOG498I, GEOG770, or GEOG788I. Formerly: GEOG498I.

An introduction to fundamental geospatial objects and geometric algorithms for spatio-temporal data processing and analysis. Point data representation and analysis: spatial data models and data structures, algorithms for spatial queries, point clustering algorithms. Surface and scalar field modeling, such as terrains: raster and triangle-based models (TINs), algorithms for building and querying TINs. Algorithms for natural and urban terrain analysis: morphology computation and visibility analysis. Applications to processing and analysis of LiDAR (Light Detection And Ranging) data in the context of terrain reconstruction, urban modeling, forest management and bathymetry reconstruction for coastal data management. Road network computation and analysis: algorithms for route computation in road networks, and for road network reconstruction from GPS and satellite data.

0101	Leila De Floriani	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	HBK 0115

CMSC411 **Computer Systems Architecture**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: ENEE446 or CMSC411.

Input/output processors and techniques. Intra-system communication, buses, caches. Addressing and memory hierarchies. Microprogramming, parallelism, and pipelining.

0101	Bahar Asgari	Seats (Total: 100)
	MW 3:30pm - 4:45pm	IRB 0318

CMSC412 **Operating Systems**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457). Restriction: Permission of CMNS-Computer Science department; or must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)). Credit only granted for: CMSC412 or ENEE447.

A hands-on introduction to operating systems, including topics in: multiprogramming, communication and synchronization, memory management, IO subsystems, and resource scheduling polices. The laboratory component consists of constructing a small kernel, including functions for device IO, multi-tasking, and memory management.

0101	Peter Keleher TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 26) IRB 2107 IRB 2107	 Discussion
0102	Peter Keleher TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 26) IRB 2107 ESJ B0322	 Discussion

CMSC414 **Computer and Network Security**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC414, ENEE459C, or ENEE457.

An introduction to the topic of security in the context of computer systems and networks. Identify, analyze, and solve network-related security problems in computer systems. Fundamentals of number theory, authentication, and encryption technologies, as well as the practical problems that have to be solved in order to make those technologies workable in a networked environment, particularly in the wide-area Internet environment.

0101	Dave Levin MW 2:00pm - 3:15pm	Seats (Total: 100) IRB 0318	
0201	Yizheng Chen TuTh 3:30pm - 4:45pm	Seats (Total: 100) IRB 0318	
0301	Zaoxing Liu TuTh 12:30pm - 1:45pm	Seats (Total: 88) CSI 2117	

CMSC416 **Introduction to Parallel Computing**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or permission of instructor. Restriction: Permission of CMNS-Computer Science department. Jointly offered with: CMSC616. Credit only granted for: CMSC416, CMSC498X, CMSC616, or CMSC818X. Formerly: CMSC498X.

Introduction to parallel computing. Topics include programming for shared memory and distributed memory parallel architectures, and fundamental issues in design, development, and performance analysis of parallel programs.

0101	Abhinav Bhatele TuTh 11:00am - 12:15pm	Seats (Total: 78) IRB 1116	

CMSC417 **Computer Networks**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Computer networks and architectures. The OSI model including discussion and examples of various network layers. A general introduction to existing network protocols. Communication protocol specification, analysis, and testing.

0101	Nirupam Roy TuTh 2:00pm - 3:15pm	Seats (Total: 88) CSI 2117

CMSC420 **Advanced Data Structures**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Description, properties, and storage allocation functions of data structures including balanced binary trees, B-Trees, hash tables, skiplists, tries, KD-Trees and Quadtrees. Algorithms for manipulating structures. Applications from areas such as String Processing, Computer Graphics, Information Retrieval, Computer Networks, Computer Vision, and Operating Systems.

0101	Justin Wyss-Gallifent TuTh 9:30am - 10:45am	Seats (Total: 145) CSI 1115
0201	Justin Wyss-Gallifent TuTh 11:00am - 12:15pm	Seats (Total: 145) CSI 1115
0301	Michael Marsh MW 2:00pm - 3:15pm	Seats (Total: 145) CSI 1115

CMSC421 **Introduction to Artificial Intelligence**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Introduces a range of ideas and methods in AI, varying semester to semester but chosen largely from: automated heuristic search, planning, games, knowledge representation, logical and statistical inference, learning, natural language processing, vision, robotics, cognitive modeling, and intelligent agents. Programming projects will help students obtain a hands-on feel for various topics.

0101	Sujeong Kim, Max Ehrlich TuTh 9:30am - 10:45am	Seats (Total: 125) ESJ 2208
0201	Max Ehrlich, Sujeong Kim TuTh 9:30am - 10:45am	Seats (Total: 125) ESJ 1202

CMSC422 **Introduction to Machine Learning**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and permission of CMNS-Computer Science department.

Machine Learning studies representations and algorithms that allow machines to improve their performance on a task from experience. This is a broad overview of existing methods for machine learning and an introduction to adaptive systems in general. Emphasis is given to practical aspects of machine learning and data mining.

Credit only granted for CMSC422 or CMSC498M.

0101	Marine Carpuat TuTh 11:00am - 12:15pm	Seats (Total: 100) IRB 0318
0201	Furong Huang TuTh 3:30pm - 4:45pm	Seats (Total: 96) IRB 1116

CMSC423 **Bioinformatic Algorithms, Databases, and Tools**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

An introduction to the main algorithms, databases, and tools used in bioinformatics. Topics may include assembly and analysis of genome sequences, reconstructing evolutionary histories, predicting protein structure, and clustering of biological data. Use of scripting languages to perform analysis tasks on biological data. No prior knowledge of biology is assumed.

0101	Mihai Pop TuTh 9:30am - 10:45am	Seats (Total: 95) IRB 0318

CMSC424 **Database Design**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Students are introduced to database systems and motivates the database approach as a mechanism for modeling the real world. An in-depth coverage of the relational model, logical database design, query languages, and other database concepts including query optimization, concurrency control; transaction management, and log based crash recovery. Distributed and Web database architectures are also discussed.

0101	Amol Deshpande TuTh 11:00am - 12:15pm	Seats (Total: 84) CSI 3117
0201	Herve Franceschi TuTh 2:00pm - 3:15pm	Seats (Total: 168) EGR 1202

CMSC425 **Game Programming**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMNS-Computer Science department.

An introduction to the principles and practice of computer game programming and design. This includes an introduction to game hardware and systems, the principles of game design, object and terrain modeling, game physics, artificial intelligence for games, networking for games, rendering and animation, and aural rendering. Course topics are reinforced through the design and implementation of a working computer game.

0101	Stevens Miller TuTh 12:30pm - 1:45pm	Seats (Total: 90) IRB 1116

CMSC426 **Computer Vision**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351 and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program; or permission of the instructor. Restriction: Permission of CMNS-Computer Science department.

An introduction to basic concepts and techniques in computervision. This includes low-level operations such as image filtering and edge detection, 3D reconstruction of scenes using stereo and structure from motion, and object detection, recognition and classification.

0101	Jia-Bin Huang TuTh 11:00am - 12:15pm	Seats (Total: 88) CSI 2117

0201	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm	Seats (Total: 95) IRB 0318

CMSC427 **Computer Graphics**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Permission of CMNS-Computer Science department.

An introduction to 3D computer graphics, focusing on the underlying building blocks and algorithms for applications such as 3D computer games, and augmented and virtual reality (AR/VR). Covers the basics of 3D image generation and 3D modeling, with an emphasis on interactive applications. Discusses the representation of 3D geometry, 3D transformations, projections, rasterization, basics of color spaces, texturing and lighting models, as well as programming of modern Graphics Processing Units (GPUs). Includes programming projects where students build their own 3D rendering engine step-by-step.

0101	Roger Eastman TuTh 9:30am - 10:45am	Seats (Total: 84) CSI 2117

CMSC430 **Introduction to Compilers**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Topics include lexical analysis, parsing, intermediate representations, program analysis, optimization, and code generation.

0101	David Van Horn MW 3:30pm - 4:45pm	Seats (Total: 200) HJP 0226

CMSC433 **Programming Language Technologies and Paradigms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Programming language technologies (e.g., object-oriented programming), their implementations and use in software design and implementation.

0101	Leonidas Lampropoulos TuTh 3:30pm - 4:45pm	Seats (Total: 145) CSI 1115

CMSC434 **Introduction to Human-Computer Interaction**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Assess usability by quantitative and qualitative methods. Conduct task analyses, usability tests, expert reviews, and continuing assessments of working products by interviews, surveys, and logging. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mockups, and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment (eg: Visual Basic, Java).

0101	Evan Golub TuTh 11:00am - 12:15pm	Seats (Total: 54) IRB 1207
0201	Evan Golub TuTh 12:30pm - 1:45pm	Seats (Total: 54) IRB 1207
0301	Huaishu Peng MW 3:30pm - 4:45pm	Seats (Total: 54) IRB 2207

CMSC435 **Software Engineering**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (CMSC412, CMSC417, CMSC420, CMSC430, CMSC433, ENEE447); and permission of CMNS-Computer Science department.

State-of-the-art techniques in software design and development. Laboratory experience in applying the techniques covered. Structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. The development of a large software project.

0101	James Purtilo TuTh 2:00pm - 3:15pm	Seats (Total: 46) CSI 1121

CMSC436 **Programming Handheld Systems**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Fundamental principles and concepts that underlie the programming of handheld systems, such as mobile phones, personal digital assistants, and tablet computers. Particular emphasis will be placed on concepts such as limited display size, power, memory and CPU speed; and new input modalities, where handheld systems differ substantially from non-handheld systems, and thus require special programming tools and approaches. Students will apply these concepts and principles in the context of an existing handset programming platform.

0101	Michael Marsh MW 3:30pm - 4:45pm	Seats (Total: 145) CSI 1115
	Course will be based on the cross-platform Flutter development kit. (no specific mobile hardware will be required-students can use simulators.)	
0201	Herve Franceschi TuTh 12:30pm - 1:45pm	Seats (Total: 145) CSI 1115
	Course will be based on the Android platform. (No Android hardware is required -- students can use simulators.)	

CMSC451 **Design and Analysis of Computer Algorithms**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Fundamental techniques for designing efficient computer algorithms, proving their correctness, and analyzing their complexity. General topics include graph algorithms, basic algorithm design paradigms (such as greedy algorithms, divide-and-conquer, and dynamic programming), network flows, NP-completeness, and other selected topics in algorithms.

0101	Andrew Childs TuTh 2:00pm - 3:15pm	Seats (Total: 95) IRB 0318
0201	Clyde Kruskal TuTh 9:30am - 10:45am	Seats (Total: 84) CSI 3117

CMSC452 **Elementary Theory of Computation**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Techniques are developed to determine the difficulty of a problem relative to a model of computation. Topics include Finite Automata, P, NP, decidability, undecidability, and communication complexity.

0101	William Gasarch TuTh 3:30pm - 4:45pm	Seats (Total: 84) CSI 3117

CMSC454 **Algorithms for Data Science**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMSC-Computer Science department.

Fundamental methods for processing a high volume of data. Methods include stream processing, locally sensitive hashing, web search methods, page rank computation, network and link analysis, dynamic graph algorithms as well as methods to handle high dimensional data/dimensionality reduction.

0101	Clyde Kruskal TuTh 12:30pm - 1:45pm	Seats (Total: 84) CSI 3117

CMSC456 **Cryptography**

(Perm req)

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor . Cross-listed with: MATH456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Allan Yashinski MWF 3:00pm - 3:50pm	Seats (Total: 75) SYM 0200
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 49) CHE 2118

CMSC457 **Introduction to Quantum Computing**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Computer Science department. Additional information: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

Cross-listed with PHYS457. Credit only granted for CMSC457 or PHYS457.

0101	Gorjan Alagic MW 9:30am - 10:45am	Seats (Total: 40) ATL 1114

CMSC460 **Computational Methods**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: AMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Tobias von Petersdorff MWF 2:00pm - 2:50pm	Seats (Total: 33) MTH 0103
0201	Stefan Doboszczak MWF 12:00pm - 12:50pm	Seats (Total: 36) JMZ 2206
0301	Deep Ray TuTh 11:00am - 12:15pm	Seats (Total: 33) PHY 0405
0401	Kayo Ide TuTh 2:00pm - 3:15pm	Seats (Total: 33) MTH 0106

CMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: AMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Abba Gumel	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	PHY 2213

CMSC470 **Introduction to Natural Language Processing**

(Perm req)

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Permission of CMNS-Computer Science department.

Introduction to fundamental techniques for automatically processing and generating natural language with computers. Machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of natural language. Application of these techniques in a series of assignments designed to address a core application such as question answering or machine translation.

0101	Jordan Ying	Seats (Total: 88)
	MW 3:30pm - 4:45pm	CSI 2117

CMSC472 **Introduction to Deep Learning**

(Perm req)

Prerequisite: Minimum grade of C- or higher in CMSC330 and CMSC351; and 1 course with a minimum grade of C- or higher from (MATH240, MATH461). Restriction: Permission of the CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's) program. Credit only granted for: CMSC498L or CMSC472. Formerly: CMSC498L.

An introduction to deep learning, a machine learning technique, as well as its applications to a variety of domains. Provides a broad overview of deep learning concepts including neural networks, convolutional neural networks, recurrent neural networks, generative models, and deep reinforcement learning, and an intuitive introduction to basics of machine learning such as simple models, learning paradigms, optimization, overfitting, importance of data, and training caveats.

0101	Abhinav Shrivastava	Seats (Total: 96)
	TuTh 2:00pm - 3:15pm	IRB 1116

CMSC475 **Combinatorics and Graph Theory**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340). And permission of CMNS-Computer Science department; or permission of CMNS-Mathematics department. Cross-listed with MATH475 .

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Wiseley Wong MWF 11:00am - 11:50am	Seats (Total: 35) PHY 2124	

CMSC477 **Robotics Perception and Planning**

(Perm req)

Prerequisite: 1 course from (MATH240, MATH341, MATH461); and (ENEE467 or CMSC420). Restriction: Must be in the Robotics and Autonomous Systems minor; and permission of Computer Science department.

A hands-on introduction to perception and planning for robotics, including rigid body transformations and rotations, dynamics and control of mobile robots/drones, graph based and sampling based planning algorithms, Bayseian and Kalman filtering, camera models and calibration, projective geometry, visual features, optical flow, pose estimation, RANSAC and Hough transform, structure from motion, visual odometry, machine learning basics, visual recognition and learning.

0101	Pratap Tokekar MW 1:00pm - 1:50pm F 11:00am - 1:50pm	Seats (Total: 28) IRB 0318 EAF 3119	 Lab
0102	Pratap Tokekar MW 1:00pm - 1:50pm W 2:30pm - 5:20pm	Seats (Total: 31) IRB 0318 EAF 3119	 Lab

CMSC498A **Selected Topics in Computer Science**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. Credit according to work completed.

Contact department for information to register for this course.

CMSC498C **Selected Topics in Computer Science; Blockchains, Applied Cryptography, and Cryptocurrency**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum grade of C- in CMSC330, CMSC351, and CMSC414 or CMSC456 Topics include blockchains ranging from fundamentals like consensus, to privacy-preserving payments, smart contracts, and decentralized finance(DeFi). The course will also cover recent developments in appliedcryptography that are in increasing industrial usage such as zero-knowledge proofs and a small amount on multi-party computation and fully homomorphic encryption. It will look at what it takes to take these technologies from academic theory to real-world usage.

0101	Ian Miers	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	CSI 2107

CMSC498F **Selected Topics in Computer Science; Advances in XR**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum grade of C- in CMSC330, CMSC351, and CMSC425 or CMSC427. Credit only granted for CMSC498F, CMSC838C, or ENEE759N. AR, VR, and MR, collectively referred to as XR, are becoming ubiquitous for human-computer interaction with limitless applications and potentialuse. This course examines advances on real-time multi-modal XR systems in which the user is 'immersed' in and interacts with a simulated 3D environment. The topics will include display, modeling, 3D graphics, haptics, audio, locomotion, animation, applications, immersionand presence. Prerequisite: Minimum grade of C- in CMSC330, CMSC351, and CMSC425 or CMSC427.

0101	Ming Lin	Seats (Total: 12)
	TuTh 12:30pm - 1:45pm	IRB 2207

CMSC498Y **Selected Topics in Computer Science; Statistical Inference and Machine Learning Methods for Genomics Data**

(Perm req)

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisites: Minimum grade of C- in CMSC351 and minimum grade of C- in any STAT400-level course; or DATA400; or ENEE324. Covers statistical inference and machine learning methods for analyzing genomic data. Examples of topics covered will include maximum likelihood(including composite and pseudo-likelihood functions), expectation-maximization, clustering algorithms, hidden markov models, statistical testing, MCMC and variational inference. Our focus will be on how these techniques are utilized to solve biological problems and the practical challenges that arise when analyzing large genomic data sets.

0101	Erin Molloy	Seats (Total: 40)
	MW 2:00pm - 3:15pm	IRB 1207

CMSC499A **Independent Undergraduate Research**

(Perm req)

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Contact department for information to register for this course.

CMSC616 **Foundations of Parallel Computing**

Prerequisite: CMSC411 and CMSC412; or permission of instructor. Restriction: Must be in the Computer Science or Applied Mathematics and Scientific Computation master's or doctoral programs. Credit only granted for: CMSC616 or CMSC818X. Formerly: CMSC818X.

Covers the foundations of parallel computing. Topics include programming for shared memory and distributed memory parallel architectures, and fundamental issues in design, development and analysis of parallel programs.

0101	Abhinav Bhatele	Seats (Total: 18)
	TuTh 11:00am - 12:15pm	IRB 1116

CMSC624 **Database System Architecture and Implementation**

Prerequisite: CMSC424; or students who have taken courses with comparable content may contact the department. Credit only granted for: CMSC624 or CMSC828N. Formerly: CMSC828N.

In-depth overview of database architectures--both the mainstream traditional architecture and more modern architectures that are especially prevalent in cloud implementations. Topics include different architectural choices for different application spaces and the tradeoffs inherent in choices and building different parts of database systems.

0101	Daniel Abadi	Seats (Total: 40)
	MW 2:00pm - 3:15pm	IRB 2207

CMSC651 **Analysis of Algorithms**

Prerequisite: CMSC451.

Efficiency of algorithms, orders of magnitude, recurrence relations, lower-bound techniques, time and space resources, NP-complete problems, polynomial hierarchies, and approximation algorithms. Sorting, searching, set manipulation, graph theory, matrix multiplication, fast Fourier transform, pattern matching, and integer and polynomial arithmetic.

0101	Aravind Srinivasan	Seats (Total: 50)
	TuTh 9:30am - 10:45am	CSI 1122

CMSC661 **Scientific Computing II**

(Perm req)

Prerequisite: Must have knowledge of Matlab or Python. Must have basic knowledge of ordinary and partial differential equations (MATH246 and MATH462 or equivalent, or permission of instructor). Cross-listed with: AMSC661. Credit only granted for: AMSC661 or CMSC661.

Numerical methods for solving ordinary and partial differential equations (elliptic, parabolic, hyperbolic, and dispersive): motivation, analysis, and implementation. Finite difference methods, finite element methods, Fourier and Chebyshev spectral methods, and meshless methods.

0101	Maria Cameron	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	MTH 0106

CMSC701 **Computational Genomics**

An introduction to the algorithms and heuristics used in the analysis of biological sequences. Includes an introduction to string matching and alignment algorithms, phylogenetic analysis, string reconstruction (genome assembly), and sequence pattern recognition (gene and motif finding). A particular emphasis will be placed on the design of efficient algorithms and on techniques for analyzing the time and space complexity of these algorithms. Computational concepts will be presented in the context of current biological applications. No prior knowledge of biology necessary.

0101	Robert Patro	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	IRB 2107

CMSC711 **Computer Networks**

Prerequisite: CMSC412; or students who have taken courses with comparable content may contact the department.

Priciples, design, and performance evaluation of computer networks. Network architectures including the ISO model and local area networks (LANs). Communication protocols and network topology.

0101	Samrat Bhattacharjee	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	KEB 1200

CMSC720 **Foundations of Deep Learning**

Prerequisite: CMSC422 or equivalent; or permission of instructor. Restriction: Must be in the Computer Science, Electrical and Computer Engineering, or Mathematics master's or doctoral programs; or permission of instructor. Credit only granted for: CMSC720 or CMSC828W. Formerly: CMSC828W.

Explore empirically-relevant theoretical foundations of deep learning (DL). Topics include DL optimization, DL generalization, Neural Tangent Kernels, Deep Generative Models (GANs, Diffusion, LLMs), DL Robustness, DL Interpretability, Domain Adaptation and Generalization, Self-Supervised Learning, Deep Reinforcement Learning.

0101	Soheil Feizi	Seats (Total: 80)
	TuTh 3:30pm - 4:45pm	CSI 2117

CMSC733 **Computer Processing of Pictorial Information**

Prerequisite: CMSC420.

Input, output, and storage of pictorial information. Pictures as information sources, efficient encoding, sampling, quantization, approximation. Position-invariant operations on pictures, digital and optical implementations, the pax language, applications to matched and spatial frequency filtering. Picture quality, image enhancement and image restoration. Picture properties and pictorial pattern recognition. Processing of complex pictures; figure extraction, properties of figures. Data structures for pictures description and manipulation; picture languages. Graphics systems for alphanumeric and other symbols, line drawings of two- and three-dimensional objects, cartoons and movies.

0101	John Aloimonos	Seats (Total: 48)
	TuTh 2:00pm - 3:15pm	IRB 1207

CMSC764 **Advanced Numerical Optimization**

Prerequisite: MATH410 or equivalent; or permission of instructor. Credit only granted for: AMSC607, AMSC764, or CMSC764.

Modern numerical methods for solving unconstrained and constrained nonlinear optimization problems in finite dimensions. Design of computational algorithms and the analysis of their properties.

0101	Thomas Goldstein	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	CHE 2110

CMSC798 **Master's Non-Thesis Research**

(Perm req)

Contact department for information to register for this course.

CMSC799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

CMSC800 **How to Conduct Great Research**

Restriction: Must be in the Computer Science doctoral program. Credit only granted for: CMSC798F or CMSC800. Formerly: CMSC798F.

Develop research skills so as to promote high quality and high impact.

0101	Jia-Bin Huang	Seats (Total: 96)
	Th 10:00am - 10:50am	IRB 1116

CMSC818G **Advanced Topics in Computer Systems; Information-Centric Design of Systems**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Ashok Agrawala	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 1122

CMSC818R **Advanced Topics in Computer Systems**

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

0101	Yonghwi Kwon	Seats (Total: 25)
	MW 12:30pm - 1:45pm	AJC 2121

CMSC828A **Advanced Topics in Information Processing; Fantastic Machine Learning Paradigms and Where to use Them**

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

There exist so many machine learning paradigms, like isolated villages hidden in a jungle. But how do they differ from each other? How can we relate them? What are their fundamental assumptions, formulations, and motivations? Where to use them? How to formulate your problem into one of them, or, when and how to create your own learning paradigms? In this course, we will take an in-depth tour in the jungle of machine learning paradigms.

0101	Tianyi Zhou	Seats (Total: 50)
	TuTh 3:30pm - 4:45pm	IRB 2207

CMSC828J **Advanced Topics in Information Processing; Common-sense Reasoning and Natural Language Understanding**

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Rachel Rudinger	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	CSI 1121

CMSC838C **Advanced Topics in Programming Languages; Advances in XR**

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

Cross-listed with ENEE759N. Credit only granted for CMSC838C, CMSC498F, or ENEE759N. AR, VR, and MR, collectively referred to as XR, are becoming ubiquitous for human-computer interaction with limitless applications and potentialuse. This course examines advances on real-time multi-modal XR systems in which the user is 'immersed' in and interacts with a simulated 3D environment. The topics will include display, modeling, 3D graphics, haptics, audio, locomotion, animation, applications, immersionand presence.

0101	Ming Lin	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	IRB 2207

CMSC838L **Advanced Topics in Programming Languages; Programming Languages and Computer Architecture**

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

Prerequisites: Successful completion of a compiler course (CMSC430 or equivalent) and a computer organization/architecture (CMSC 411 or equivalent) is strongly recommended. Exploration of the interplay between computer architecture and programming languages, with a focus on applying PL formalisms and techniques to emerging computer architecture research. The course is structured into three parts: 1) Topics in various non-traditional computer architectures and computing paradigms (including dataflow processing, intermittent computing, persistent memory, reconfigurable architectures,etc.); 2) Programming languages *for* computer architecture (including design of hardware description languages and high-level synthesis languages, etc.); 3) Problems of end-to-end correctness guarantees (including verified and secure compilation, full-stack correctness proofs, etc.)

0101	Milijana Surbatovich	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 1207

CMSC839A **Advanced Topics in Human-Computer Interaction; Embodied Media Design**

Advanced topics selected by the faculty from the literature of human-computer interaction to suit the interest and background of students.

Exploration of the potential of human augmentation technologies, such as wearable computing, haptics, virtual reality, and more, to enhance human physical, psychological, and cognitive capabilities. Students willread relevant literature from the fields of Psychology and Human-Computer Interaction. Additionally, students will create low-fidelity paper mockups and a prototype using contemporary tools, such as an open-sourcehardware platform and a programming environment.

0101	Jun Nishida	Seats (Total: 35)
	MW 3:30pm - 4:45pm	CSI 3118

CMSC848B **Selected Topics in Information Processing; Computational Imaging**

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

0101	Christopher Metzler	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 2107

CMSC848G **Selected Topics in Information Processing; Selected Topics in Machine Learning**

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

0101	Heng Huang	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	CSI 1122

CMSC848J **Selected Topics in Information Processing; Cognitive Robotics**

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

Prerequisites: Successful completion (minimum grade of C-) in CMSC351, CMSC420, and CMSC330, as well as one course from (MATH240, MATH341, MATH461); and permission of the CMNS-Computer Science department. This course is open to Master's or Doctoral students in Computer Science, Electrical and Computer Engineering, or Mechanical Engineering programs. Cognitive Robotics explores the application of human cognitive intelligence to the design and development of intelligent robots. The course delves into the fundamental principles of human cognitive intelligence and its integration with robotics and machine learning. Students will learn to develop cognitive robot learning architectures and implement them using simulators like Pybullet, NVIDA Issac-Gym, and Meta Habitat 2.0. Through engaging class projects, students will apply their newly acquired knowledge to solve novel, challenging and practically useful problems, enabling them to make meaningful contributions to the field. This unique opportunity to bridge the gap between cognitive science and robot learning that empowers students to develop smarter andand more capable robotic systems.

0101	Yantian Zha	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	EGR 3106

CMSC858G **Advanced Topics in Theory of Computing; Quantum Error Correction and Fault-Tolerance**

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Daniel Gottesman	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CSI 1122

CMSC858N **Advanced Topics in Theory of Computing; Scalable Parallel Algorithms and Data Structures**

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Laxman Dhulipala TuTh 12:30pm - 1:45pm	Seats (Total: 40) CSI 2120

CMSC858O **Advanced Topics in Theory of Computing; The Foundation of End-to-End Quantum Applications**

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Xiaodi Wu TuTh 3:30pm - 4:45pm	Seats (Total: 30) IRB 1207

CMSC898 **Pre-Candidacy Research**

Advanced topics selected by the faculty from the literature of applications of computer science to suit the interest and background of students.

Contact department for information to register for this course.

CMSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

COMM Communication Spring 2024

COMM107 **Oral Communication: Principles and Practices**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Stephan Garnier MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1112
0201	Daniel Foster MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1176
0301	Seyeon Park MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1180
0401	Crystal Stone MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1184

0501	Xinyi Song MWF 8:00am - 8:50am	Seats (Total: 19) KEY 0119
0601	Chantay Moye MWF 8:00am - 8:50am	Seats (Total: 19) KEY 0117
1101	Stephan Garnier MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1112
1201	Daniel Foster MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1176
1301	Seyeon Park MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1180
1401	Crystal Stone MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1184
1501	Xinyi Song MWF 9:00am - 9:50am	Seats (Total: 19) KEY 0119
1701	Jim Golden MWF 9:00am - 9:50am	Seats (Total: 19) JMZ 0208
2301	Anani Kuwornu MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1112
2401	Jim Golden MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1176
2501	Faith Otchere MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1180
2601	Tatenda Mashanda MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1184
2801	Kimberli Munoz MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0117
2901	Crystal Stone MWF 10:00am - 10:50am	Seats (Total: 19) JMZ 1122

3301	Anani Kuwornu MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1112
3401	Jim Golden MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1176
3501	Faith Otchere MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1180
3601	Tatenda Mashanda MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1184
3901	Kimberli Munoz MWF 11:00am - 11:50am	Seats (Total: 19) TLF 0110
4301	Jim Golden MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1176
4401	Kimberli Munoz MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1180
4501	Miriam Komuhendo MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1184
4601	Daniel Foster MWF 1:00pm - 1:50pm	Seats (Total: 19) EDU 2101
4901	Jim Golden MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1158
5001	Kimberli Munoz MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1164
5101	Miriam Komuhendo MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1111
5201	Daniel Foster MWF 2:00pm - 2:50pm	Seats (Total: 19) KNI 1206
5601	Jiawen Doh MW 2:00pm - 3:15pm	Seats (Total: 19) SKN 1112

5701	Mollie Kaufer MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1176
5801	Raphael Mazzone MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
6101	Viktoriia Savchuk MW 3:30pm - 4:45pm	Seats (Total: 19) SKN 1112
6201	Vijaya Bohlmann MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
6301	Mollie Kaufer MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
6401	Jiawen Doh MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
6501	Ayodeji Dapherede-Otusanya MW 3:30pm - 4:45pm	Seats (Total: 19) KEY 0119
6601	Neha Kamran MW 3:30pm - 4:45pm	Seats (Total: 19) JMZ 0208
6701	Viktoriia Savchuk MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
6801	L Gordon MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
6901	Ayodeji Dapherede-Otusanya MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1180
7001	Julie Gowin MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1184
7201	L Gordon MW 6:30pm - 7:45pm	Seats (Total: 19) PLS 1176
7301	Rachel Bailey TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 1112

7401	Siqiao Ao TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1176
7501	Katie O'Malley TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1180
7601	Misa Park TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1184
7701	Elizabeth Phipps TuTh 8:00am - 9:15am	Seats (Total: 19) KEY 0117
8001	Soyoung Bae TuTh 9:30am - 10:45am	Seats (Total: 19) EDU 2102
8101	Rachel Bailey TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 1112
8201	Allison Doherty TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1176
8301	Katie O'Malley TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1180
8401	Misa Park TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1184
8501	Jeonghyun Kim TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 3203
8601	Andrew Lowe Mohammed TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1120
8701	Thomas McCloskey TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 0120
8801	Cassondra Pope TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1226
8901	Jeonghyun Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 1112

9001	Allison Doherty TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1176
9101	Sabeen Sheikh TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1180
9201	Cassondra Pope TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1184
9301	Thomas McCloskey TuTh 11:00am - 12:15pm	Seats (Total: 19) TLF 0110
9501	Rudy Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) SYM 0209
9601	Rachel Bailey TuTh 12:30pm - 1:45pm	Seats (Total: 19) SKN 1112
9701	Allison Doherty TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1176
9801	Sabeen Sheikh TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1180
9901	Tania Nachrin TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1184
9902	Hafiz Ahmad TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 1224
9903	Najwa Albaqami TuTh 12:30pm - 1:45pm	Seats (Total: 19) ARC 1125
9904	Kalin Schultz TuTh 12:30pm - 1:45pm	Seats (Total: 19) SYM 0209
9905	Tania Nachrin TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 1112
9906	Soyoung Bae TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1176

9907	Neha Kamran TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
9908	Jeremy Grossman TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1184
9909	Hafiz Ahmad TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 1215
9910	Najwa Albaqami TuTh 2:00pm - 3:15pm	Seats (Total: 19) ARC 1125
9911	Daviana Fraser TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 1120
9912	Allison Doherty TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 1112
9913	Neha Kamran TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
9914	Thomas McCloskey TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180
9915	Jeremy Grossman TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
9916	Rachel Bailey TuTh 3:30pm - 4:45pm	Seats (Total: 19) KEY 0123
9917	Hailey Otis TuTh 3:30pm - 4:45pm	Seats (Total: 19) KEY 0119
9918	Cassondra Pope TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
9919	Neha Kamran TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
9920	Taylor Kleiner TuTh 5:00pm - 6:15pm	Seats (Total: 19) PLS 1180

9922	Jonathan Leach TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 2120
9923	Melissa Lucas TuTh 3:30pm - 4:45pm	Seats (Total: 19) JMZ 2125
9924	Sean Rhodes TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1164

COMM107B **Oral Communication: Principles and Practices**

(Perm req)

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

Restricted to students in the Smith Business Leadership Fellows Program.

0101	Melissa Lucas TuTh 12:30pm - 1:45pm *This class is designed for current or prospective Business Majors.*	Seats (Total: 19) WDS 1131
0201	Christine Schaaf TuTh 12:30pm - 1:45pm	Seats (Total: 19) SQH 1123

COMM107C **Oral Communication: Principles and Practices**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

0101	Cassondra Pope TuTh 8:00am - 9:15am *This class is designed for current or prospective STEM students.*	Seats (Total: 19) JMZ 0208

COMM130 **Professional Communication and Writing**

Restriction: Must be in the Communication major.

Designed to enhance the clarity and grace of students' writing. Students will acquire knowledge of writing based on principles of style and grammar as well as argument and organizational structure across a diversity of professional writing contexts. Students will also engage in peer review of one another's writing.

0101	Skye De Saint Felix F 11:00am - 11:50am	Seats (Total: 50) ONLINE
0201	Skye De Saint Felix F 12:00pm - 12:50pm	Seats (Total: 50) ONLINE

COMM200 **Critical Thinking and Speaking**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130, OR THET285.

Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

0101	Thomas McCloskey TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 1103
0201	Thomas McCloskey TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 1117
0301	Divine Aboagye MWF 11:00am - 11:50am	Seats (Total: 19) JMZ 2120
0401	Divine Aboagye MWF 10:00am - 10:50am	Seats (Total: 19) JMZ 2120

COMM201 **Introduction to Public Relations**

Prerequisite: Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication major.

Basic concepts and principles of public relations. Roles in organizations and society; history; skills and practices of public relations; theories and models of effective and ethical public relations.

0101	Susan Simon TuTh 2:00pm - 3:15pm	Seats (Total: 50) TYD 1102

COMM230 **Argumentation and Debate**

A study of the fundamental principles of reasoning, analysis, and evidence preparation of debate briefs and presentation of standard academic debate.

0101	Sean Rhodes TuTh 8:00am - 9:15am	Seats (Total: 24) WDS 1102
0201	Sean Rhodes TuTh 9:30am - 10:45am	Seats (Total: 24) SQH 1103

COMM250 **Introduction to Communication Inquiry**

An introduction to the field of communication. Definitions, models, and contexts of communication; rhetorical theory and rhetorical criticism of discourse.

This is a blended learning course.

0101	Anita Seate M 11:00am - 11:50am W 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ONLINE JMZ 0220 MMH 1304	Discussion
0103	Anita Seate M 11:00am - 11:50am W 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ONLINE JMZ 0220 SKN 1115	Discussion
0105	Anita Seate M 11:00am - 11:50am W 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ONLINE JMZ 0220 KEY 0102	Discussion
0106	Anita Seate M 11:00am - 11:50am W 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ONLINE JMZ 0220 KEY 0116	Discussion
0108	Anita Seate M 11:00am - 11:50am W 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ONLINE JMZ 0220 JMZ 2206	Discussion
0109	Anita Seate M 11:00am - 11:50am W 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ONLINE JMZ 0220 JMZ 0125	Discussion

COMM269B **Special Topics in Study Abroad II; Oral Communication for Leaders in the Business World**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269C **Special Topics in Study Abroad II; Designing Communicatoin Campaigns**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269M **Special Topics in Study Abroad II; Media Technology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269P **Special Topics in Study Abroad II; Principles of Film and Media Production**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269V **Special Topics in Study Abroad II; Visual Communication: Intercultural Photography**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM288 **Communication Internship**

(Perm req)

An individual experience arranged by the student with the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 20)
0601	Leah Waks Contact instructor or department for details.	Seats (Total: 20)

COMM298M **Selected Topics in Communication; Machine Learning in Language and Art**

Special topical study of contemporary issues in communication.

Cross-listed with ARHU299M and ENGL289G. Credit only granted for ARHU299M, COMM298M, or ENGL289G. How do language models like ChatGPT generate essays, poems, and stories? How do machine learning models learn to determine the author of a text, or identify the artist behind a painting? What makes language models like ChatGPT different from image generators like Stable Diffusion? And can language models be used to make music? We will teach you how to build models that read and write in natural languages, what makes those models different from applications of machine learning to visual art and music, how to use Python for data analysis and statistics, how to visualize data, and how to apply mathematical and statistical knowledge to practical problems in the digital humanities. No background in coding or statistics is required, but students with some programming or statistics experience are also very welcome in the course.

0101	Omar Agha, Utku Turk TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0125

COMM301 **Rhetorical Theories**

Prerequisite: COMM130, COMM250; and one course from STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one course from COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM301 or COMM401.

Explores the idea of rhetoric, from antiquity to digitality. Rhetoric, as an art of moving bodies, is central to democratic self-governance: only through persuading each other can we develop a shared vision of a just and desirable future. This course tracks the genesis of rhetorical theory in the ancient world, 20th-century struggles against fascist rhetoric, and contemporary extensions of rhetoric in digital media ecologies.

0101	Damien Pfister TuTh 9:30am - 10:45am	Seats (Total: 50) TYD 1102
ESG1	Janna Soeder TuTh 9:30am - 10:45am	Seats (Total: 30) BLD3 2225
	Restricted to students in the Communication Program at USG.	

COMM302 Communication Science Theories

Prerequisite: COMM130, COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM302 or COMM402.

This class introduces students to the principles of theory construction and offers a critical overview of how communication theories can be applied to solving problems in diverse social contexts, including interpersonal, intercultural, organizational, health, and/or political issues. The ultimate goal of this course is to put students in an intellectual position to understand theories more logically and critically and use them appropriately and effectively in conducting academic research and addressing social issues.

0101	Jiyoun Kim TuTh 2:00pm - 3:15pm	Seats (Total: 50) TYD 1101

COMM303 Media Theory

Prerequisite: COMM130 and COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major.

Provides students with an introduction to media theory from multiple perspectives. We will begin by understanding how the history of mediated communication has been connected to ideology and lived experiences. Through readings, discussions, and activities, you will understand how technical, historical, economic social, and political forces have helped shape media content and the media themselves. You should also become familiar with the debate over how much influence the media have over their audiences, and what types of influences are present. The course will introduce issues relevant to consideration of media and historically underrepresented and marginalized groups, as well as individual and societal functions of the media.

Restriction: Restricted to COMM majors only. Credit only granted for COMM303 or COMM398G (Fall 2020). Formerly offered as COMM398G in Fall 2020.

0101	Anita Seate MW 3:30pm - 4:45pm	Seats (Total: 70) TWS 1310

COMM304 Communication Research Literacy

Prerequisite: Must have completed the Communication gateway requirements (COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200 or COMM230). Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication program.

Explores the different research traditions in the Communication discipline. This "literacy" course will develop students' ability to locate and fully comprehend Communication research and to understand how that research is conducted, reported, analyzed, and critiqued in Communication literature.

0101	Nick Joyce MW 2:00pm - 3:15pm	Seats (Total: 120) ESJ 2204

COMM305 Qualitative Communication Research Methods

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Introduces undergraduate students to the methods used in qualitative communication research. Topics covered in class include ethics, field research, reflexivity, data collection, and data analysis. Over the course of the semester, students will develop a research prospectus, engage in field research (interviews and observations), analyze qualitative data, and write/present their research.

0101	Sahar Khamis MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0125
ESG1	Ayodeji Dapherede-Otusanya TuTh 12:30pm - 1:45pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 4225

COMM306 Rhetorical Methods in Communication

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Equips students with skills for conducting research using rhetorical-critical methods. Such methods are crucial for scholars studying all kinds of public rhetoric: speeches, popular culture, photojournalism, digital media, public monuments, laws, and more. They are also instrumental for citizens engaging with elected officials, other citizens, and democratic institutions, as well as professionals who seek to create and understand persuasive discourse. This course will equip you with critical interpretive skills important to your work as a scholar, citizen, and professional.

0101	Janna Soeder MW 2:00pm - 3:15pm	Seats (Total: 30) KEY 0102

COMM307 **Quantitative Methods in Communication**

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM400 or COMM307. Formerly: COMM400.

Designed to introduce students to the basics of quantitative communication research methods. As such, it covers the basic principles of scientific inquiry, the process for generating research questions and hypotheses, the concept of variables, sampling methods, research designs, basics of data analyses, as well as ethics in scientific research. This course prepares students to become informed consumers of quantitative communication research.

0101	Yan Qu TuTh 11:00am - 12:15pm	Seats (Total: 30) SQH 1105
0201	Sun Young Lee MW 2:00pm - 3:15pm	Seats (Total: 30) TYD 2106

COMM311 **Peer Consulting in Oral Communication**

(Perm req)

Restriction: Permission of Communication department. Credit only granted for: COMM398C or COMM311. Formerly: COMM398C. Additional information: There will be a pre-enrollment interview conducted before students are given permission to enroll in the course.

Provides training in the principles and practice of peer consulting in the context of the Oral Communication Center in the Department of Communication. Students will apply and integrate the knowledge and skills acquired in their fundamental studies oral communications course with new training to help their peers become outstanding listeners and speakers. Students will also engage in a group research project designed to extend knowledge in peer consulting best practices.

0101	Raphael Mazzone MW 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 20) KEY 0126

COMM324 **Communication and Gender**

Explores how communication shapes constructions of gender, sex, sexuality and other identity markers. Topics include issues of oppression, identity, and power and social, political, and economic situations and examines how these issues impact our daily lives.

0101	Emma Newton TuTh 8:00am - 9:15am	Seats (Total: 25) KEY 0123
0201	Emma Newton TuTh 9:30am - 10:45am	Seats (Total: 25) SKN 1115
0301	Kalin Schultz TuTh 3:30pm - 4:45pm	Seats (Total: 25) JMZ 3203
0401	Kalin Schultz TuTh 5:00pm - 6:15pm	Seats (Total: 25) KEY 0123
ESG1	Maggie Williams MW 9:30am - 10:45am *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 3226

COMM330 **Argumentation and Public Policy**

Contemporary theories of argumentation with special emphasis on methods of formulating and critiquing public policy argument.

0101	Carolyn Robbins MWF 11:00am - 11:50am	Seats (Total: 25) KEY 0125
0201	Carolyn Robbins MWF 10:00am - 10:50am	Seats (Total: 25) KEY 0125

COMM331 **News Writing and Reporting for Public Relations**

(Perm req)

Prerequisite: COMM130 and COMM201. Restriction: Must be in Communication program; and (sophomore standing; or junior standing). Credit only granted for: JOUR201, COMM231, or COMM331. Formerly: COMM231.

Writing and researching news and information media for public relations; laboratory in news-gathering tools and writing techniques for public relations.

0201	Mollie Kaufer, Vijaya Bohlmann MW 10:00am - 11:50am	Seats (Total: 18) SQH 1123

0401	Mollie Kaufer, Dionne Clemons TuTh 9:30am - 11:20am	Seats (Total: 18) KEY 0117

COMM351 **Public Relations Techniques**

(Perm req)

Prerequisite: COMM331. Restriction: Must be in Communication program.

The techniques of public relations, including news releases, publications and printed materials, audio-visual techniques, speeches and special events. Application of these techniques in laboratory and field projects.

0201	Steven Drake MW 3:30pm - 4:45pm	Seats (Total: 18) ASY 3221

COMM353 **New Media Writing for Public Relations**

(Perm req)

Prerequisite: Minimum grade of C- in COMM351. Restriction: Must be in Communication program. Credit only granted for: COMM352 or COMM353. Formerly: COMM352.

Students learn the uses and influence of new media on public relations practice and expand their ability to write using new and traditional media platforms and tools

0201	Olivia Truban TuTh 11:00am - 12:15pm	Seats (Total: 18) WDS 1102
0401	Olivia Truban TuTh 9:30am - 10:45am	Seats (Total: 18) WDS 1102

COMM354 **Public Relations Programs**

Prerequisite: COMM201.

Analysis of eight major programs typically carried out by public relations professionals: employee relations, media relations, financial relations, member relations, governmental relations, community relations, fundraising and dealing with activist public.

0101	Vijaya Bohlmann MW 2:00pm - 3:15pm	Seats (Total: 30) PLS 1113

COMM360 **The Rhetoric of Black America**

An historical-critical survey of the rhetoric of Black Americans from the colonial period to the present.

0101	Daviana Fraser TuTh 9:30am - 10:45am	Seats (Total: 25) TLF 0103
0201	Alisa Hardy TuTh 11:00am - 12:15pm	Seats (Total: 25) TLF 0103

COMM370 **Mediated Communication**

Prerequisite: COMM250. Restriction: Junior standing or higher.

Analysis and critique of structure, performance, content, effects, and future of mediated communication.

Contact department for information to register for this course.

COMM374 **Communicating Visually: Message Production and Digital Media**

Restriction: Restricted to Communication Majors at the Universities at Shady Grove.

Focus on the interplay between technology, images and sound in the creation of digital content. This is a communication process by which a digital visual message evolves from conception to completion, incorporating the creative, financial and marketing tools. Students will conceive, plan, recruit and supervise digital video projects, developing a familiarity with production management technique and execution.

Credit only granted for COMM374 or COMM498T.

ESG1	Adam Nixon M 5:00pm - 7:30pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 25) BLD3 3212

COMM376 **Communication through Advocacy Short Film**

Restriction: Must be in Communication program.

Explores the theory and practice of contemporary communication and advocacy short form video.

ESG1	Lauren Vance W 2:00pm - 4:30pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 25) BLD3 3212

COMM382 **Essentials of Intercultural Communication**

Credit only granted for: COMM382 or COMM482.

Introduction of major theories and concepts of intercultural communication; examination of processes that make up cultural differences; and use of intercultural communication competence skills.

0101	Maggie Williams MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0126

0201	Umisha Kc TuTh 9:30am - 10:45am	Seats (Total: 25) SQH 1121
0301	Maggie Williams MW 2:00pm - 3:15pm	Seats (Total: 30) KEY 0125

COMM385 **Influence**

Credit only granted for: COMM385 or COMM498I (Spring 2014). Formerly: COMM498I (Spring 2014).

Explores contemporary theories of influence and their implications for communication practice. Topics include power and influence, logical theory, rhetorical theory, persuasion theory, framing theory, social influence theory, and propagation of influence in mediated social networks.

0101	Carina Zelaya TuTh 12:30pm - 1:45pm	Seats (Total: 48) TYD 1118

COMM386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-Communication department. Restriction: Junior standing or higher; and must be in Communication program.

Supervised internship experience with communication professionals. Relation of academic training to professional experience.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 75)
ESG1	Raimonda Nuredini Class time/details on ELMs *Contact department or instructor for details. Restricted to students in the Communication Program at USG.*	Seats (Total: 20) ONLINE

COMM388 **Communication Practicum**

(Perm req)

Supervised professional-level practice in communication.

Contact department for information to register for this course.

COMM398 **Selected Topics in Communication**

(Perm req)

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398E **Selected Topics in Communication; Health Communication**

Topical study of contemporary issues in communication.

ESG1	Ayodeji Dapherede-Otusanya	Seats (Total: 30)
	TuTh 2:30pm - 3:45pm	BLD3 4225
	Restricted to students in the Communication Program at USG.	

COMM398O **Selected Topics in Communication; Environmental Communication**

Topical study of contemporary issues in communication.

0101	Jade Olson	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	HBK 0105

COMM398P **Selected Topics in Communication; Advanced Strategic Message Design**

Topical study of contemporary issues in communication.

ESG1	Ilse Genovese	Seats (Total: 25)
	MW 2:00pm - 3:15pm	BLD3 3216
	Restricted to students in the Communication Program at USG.	

COMM398R **Selected Topics in Communication; Interactive Online Media**

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398T **Selected Topics in Communication; Digital Culture and Civic Life**

Topical study of contemporary issues in communication.

0101	Elizabeth Phipps	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	KEY 0126

COMM398U **Selected Topics in Communication; Peer Mentoring in Oral Communication**

(Perm req)

Topical study of contemporary issues in communication.

Prerequisite: COMM311 or COMM398C. Restriction: Permission of department. Provides training in peer mentoring specifically focusing on communicative best practices, the establishment of shared goals, and effectively managing the mentor/mentee relationships.

0101	Raphael Mazzone	Seats (Total: 20)
	MW 12:00pm - 12:50pm Contact instructor or department for details.	KEY 0126

COMM398Y **Selected Topics in Communication; Strategic Communication and New Media**

Topical study of contemporary issues in communication.

Restricted to COMM majors. This course will acquaint you with practical knowledge and analytical skills necessary to create, evaluate, and execute digital media and mobile campaigns. This course will also provide iconic and current case studies using social media and mobile, individual assignments, and engaged activities that will help you in developing a strong social media skill set to take to future job and/or internship interviews.

0101	Tegan Bratcher TuTh 5:00pm - 6:15pm	Seats (Total: 30) PLS 1111

COMM399 **Honors Thesis**

(Perm req)

0601	Leah Waks Contact instructor or department for details.	Seats (Total: 10)
3701	Sahar Khamis Contact instructor or department for details.	Seats (Total: 5)
4901	Lindsey Anderson Contact instructor or department for details.	Seats (Total: 10)
5101	Damien Pfister Contact instructor or department for details.	Seats (Total: 10)
5301	Kang Namkoong Contact instructor or department for details.	Seats (Total: 10)

COMM424 **Communication in Complex Organizations**

Structure and function of communication within organizations: organizational climate and culture, information flow, networks and role relationships.

0101	Daniel Foster MWF 10:00am - 10:50am	Seats (Total: 30) HBK 0123
ESG1	Dionne Clemons MW 9:30am - 10:45am *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 4211

COMM425 **Negotiation and Conflict Management**

Role of communication in shaping negotiation and conflict processes and outcomes.

Restricted to COMM majors.

0101	Lauren Edelstein TuTh 11:00am - 12:15pm	Seats (Total: 30) HJP 2217

COMM426 **Conflict Management**

Recommended: COMM425 and COMM250.

Role of communication in managing conflict processes.

Restricted to COMM majors.

0101	Lauren Edelstein TuTh 9:30am - 10:45am	Seats (Total: 30) HJP 2217

COMM427H **Crisis Communication**

(Perm req)

Explores theories and research related to communication before, during, and after a crisis. Students examine the fundamentals of organizational communication, crisis management, and strategic and crisis communication planning before examining case studies of a number of real-life crises: organizational crises, natural disasters, accidents, terrorism incidents, health crises, and major crises of credibility.

Restricted to students in the Departmental Honors Program.

0101	Nana Kwame Osei Fordjour MW 5:00pm - 6:15pm	Seats (Total: 20) TLF 1101

COMM428D **Special Topics Seminar in Dialogues and Deliberation; Principles and Practices of Democratic Talk**

A study in public dialogue and deliberation theory and practice. This course will integrate recorded lectures, readings, videos, Public Dialogues, teamwork, and historical research.

This class considers how dialogue and deliberation contribute to democratic politics. We learn principles of dialogue and deliberation, watch them in real life examples, and then practice facilitation skills by conducting a real world opportunity for democratic talk.

0101	Kristjana Maddux TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 1106

COMM449B **Special Topics in Digital Communication; Social Media**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restrictions: Restricted to COMM majors only. Social Media has become one of the most influential forms of media in modern society. Everyone from world leaders, celebrities, athletes, businesses, brands, and people, in general, use social media imyriad of different ways. This course aims to introduce the general concof social media and its impact on society (domestically and internationally). The course also examines the theoretical and cultural aspects of social media to understand how this communication form has changed our relationship between individuals, organizations, and society.

0101	Lamia Zia MW 2:00pm - 3:15pm	Seats (Total: 30) KEY 0116

COMM449E **Special Topics in Digital Communication; Communication, Sport, and Media**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

ESG1	Maggie Williams MW 11:00am - 12:15pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 3226

COMM449F **Special Topics in Digital Communication; Media Campaigns and Message Design**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Restricted to COMM majors only. In this project-based course, students will learn about media campaigns by topics and design campaigns using different media platforms.

0101	Soyoung Bae TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0201

COMM449G **Special Topics in Digital Communication; Digital Media & Sports Communication**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Must be in Communication program. Sports commuincation and digital media explore social video, digital analytics, and brand building online. Students will earn Google certification while creating compelling online content grounded in communication theory.

0101	Adam Nixon TuTh 2:00pm - 3:15pm	Seats (Total: 30) HJP 2242
0201	Adam Nixon TuTh 12:30pm - 1:45pm	Seats (Total: 30) ESJ B0320

COMM449I **Special Topics in Digital Communication; Studying Digital Humanities**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

0101	Rianna Walcott	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	PLS 1117

COMM449K **Special Topics in Digital Communication; Cybersecurity and Digital Communication**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

ESG1	Lamia Zia	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	BLD3 2225
	Restricted to students in the Communication Program at USG.	

COMM449P **Special Topics in Digital Communication; Black Podcasts**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Must be a student in the COMM major. This course examines the cultural production and significance of Black podcasts. Students will examine how podcasts can help us make sense of shifting meanings of race, gender, and sexuality.

0101	Briana Barner	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ESJ B0320

COMM449Y **Special Topics in Digital Communication; Digital Video Production**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

ESG1	Lauren Vance	Seats (Total: 15)
	Th 3:00pm - 6:00pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM449Z **Special Topics in Digital Communication; Digital Message Design for User-Friendly Application**

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

ESG1	Ilse Genovese	Seats (Total: 25)
	MW 12:30pm - 1:45pm	BLD3 3216
	Restricted to students in the Communication Program at USG.	

COMM456 **Freedom of Speech & the First Amendment**

Credit only granted for: COMM498Y or COMM456. Formerly: COMM498Y.

Examines the U.S. Supreme Court's rulings on freedom of speech cases as grounded in the First Amendment to the U.S. Constitution. It also considers the political and ideological role of "freedom of speech" as a rhetoric organizing and ordering U.S. political culture.

0101	Jade Olson TuTh 3:30pm - 4:45pm	Seats (Total: 30) HBK 0105

COMM461 **Voices of Public Leadership in the Twentieth Century**

Study of the use of speaking in the power struggles of the twentieth century. Focus is on important speakers of the century, their social and policy influence, and the struggle to expand the diversity of voices with power in the public sphere.

0101	Carly Woods MW 2:00pm - 3:15pm	Seats (Total: 30) HBK 1108

COMM462 **Visual Communication**

Credit only granted for: COMM462 or COMM498V. Formerly: COMM498V.

The study of visual communication should change the way one sees the world. Students will observe, analyze, and critique visual images. The ascendance of images in our contemporary world will be demonstrated, methods for critically comprehending how images do persuasive work will be identified, and students will develop a vocabulary for critiquing images, and assist students in creating compelling images.

0101	Janna Soeder MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0102
ESG1	Janna Soeder TuTh 11:00am - 12:15pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 3225

COMM468A **Seminar in Mediated Communication; Arab Media**

The examination of special topics related to the study of mediated communication.

0101	Sahar Khamis MW 5:00pm - 6:15pm	Seats (Total: 30) KEY 0125

COMM468G **Seminar in Mediated Communication; Communicating in a Global Society**

The examination of special topics related to the study of mediated communication.

Restrictions: Restricted to COMM majors only. Engages international and intercultural communication to enable students to become effective communicators with others in an increasingly diverse global society. This course critically interrogates the themes and processes of intercultural communication, global media, and globalization, attending to the effects and implications of those proces for communication.

0101	Lamia Zia MW 3:30pm - 4:45pm	Seats (Total: 30) JMZ 0103
ESG1	Lamia Zia TuTh 12:30pm - 1:45pm *Restricted to students in the Communication Program at USG.*	Seats (Total: 30) BLD3 2225

COMM475 **Persuasion**

Bases of persuasion, with emphasis on recent experimental developments in persuasion.

Restricted to COMM majors.

0101	Soyoung Bae TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 2102

COMM476 **Language, Communication, and Action**

Restriction: Must be in the Communication major.

Communication as symbolic action through the study of communication ethics. Emerging ethical principles and decision-making in public discourse, interpersonal communication, organizational communication, public relations, health communication, and crisis communication.

This course is restricted to COMM majors only.

0101	Brooke Liu TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 1224
0201	Brooke Liu TuTh 3:30pm - 4:45pm	Seats (Total: 30) JMZ 0122

COMM483 **Senior Seminar in Public Relations**

(Perm req)

Prerequisite: COMM351; and 1 course from (COMM305, COMM306, COMM307, or COMM400). Additional information: Students who enrolled after Fall 2020 should not take COMM400 as a prerequisite.

Integration of theory, techniques and research methods into the planning and execution of public relations campaigns for specific organizations. Analysis of research on the case studies of public relations.

Restricted to majors in Communitcation

0101	Susan Simon TuTh 12:30pm - 1:45pm	Seats (Total: 20) KEY 0125
0301	Steven Drake TuTh 2:00pm - 3:15pm	Seats (Total: 20) WDS 1102

COMM488 **Communication Portfolio Project**

(Perm req)

Preparation of the professional communication portfolio.

Contact department for information to register for this course.

COMM488I **Communication Portfolio Project; Strategic Interviewing**

Preparation of the professional communication portfolio.

This course introduces students to advanced techniques in interviewing for job opportunities and career progression. This online course focuses on the dynamics of the interview process, the communication theories and best practices behind influence and persuasion, and the communication aptitudes and skills that distinguish top candidates.

0101	Delight Agboada Class time/details on ELMs	Seats (Total: 50) ONLINE

COMM489 **Topical Research**

(Perm req)

Individualized research projects conducted with a faculty sponsor.

Contact department for information to register for this course.

COMM498G **Seminar; Event Planning and Communication**

Present-day communication research.

Restricted to COMM majors (1506A) only. A hands-on course where client work will develop the professional-level skills required to plan a creative event on time and under budget and build brand awareness of the client. This course requires attendance at several meetings, conference calls, lectures and activities outside of the scheduled class time.

ESG1	Dionne Clemons	Seats (Total: 25)
	MW 11:00am - 12:15pm	BLD3 4211
	Restricted to students in the Communication Program at USG.	

COMM498J **Seminar; Strategic Communication**

Present-day communication research.

This course presents a system of strategies that underlie communication. It is a practice-based framework with definitions, conditions, risks and rewards that inform the moves and motives of influence professionals. Through a series of interactive lectures, landmark writings, group exercises and classroom simulations, students will learn to decode, defend, apply and ethically manage the ever-present plays of dynamic, media-driven markets.

0101	Nana Kwame Osei Fordjour	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TLF 1101

COMM498L **Seminar; Writing for Film and Digital Media**

Present-day communication research.

ESG1	Adam Nixon	Seats (Total: 25)
	M 2:00pm - 4:30pm	BLD3 3212
	Restricted to students in the Communication Program at USG.	

COMM498R **Seminar; Risk Communiation**

Present-day communication research.

0101	Jiyoun Kim	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1114

COMM633 **Global Public Relations**

Credit only granted for: COMM633 or JOUR633. Formerly: JOUR633.

Application of principles of public relations to countries or regions with different cultures, political systems, economic systems, levels of development, media systems, and levels of activism.

0101	Ganga Dhanesh	Seats (Total: 15)
	Tu 3:30pm - 6:30pm	SKN 2127

COMM661 **Communication and Social Change**

Place of rhetoric as the union of the moral and historical in moments of social definition. Reviews theories of discourse in social change including political change, social movements, consciousness change, and more global change. Application to contemporary change.

0101	Carly Woods W 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM688 **Communication Field Experience**

(Perm req)

Applications of communication principles and research in professional communication settings.

Contact department for information to register for this course.

COMM698 **Special Problems in Communication**

(Perm req)

Contact department for information to register for this course.

COMM698M **Special Problems in Communication; Colloquium in Digital Studies**

Cross-listed with MITH729. Credit only granted for MITH729 or COMM698M.

0101	Catherine Steele **Meets January 27, 2024 - April 28, 2024** F 3:00pm - 5:00pm	Seats (Total: 25) TYD 1118

COMM701 **Quantitative Methods in Communication Research**

Prerequisite: COMM700. Formerly: SPCH701.

Logic and methods of quantitative data collection and statistical analysis as applied to communication studies. Research strategies for communications: experimentation, survey research, field research, and content analysis.

0101	Nick Joyce M 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM738A **Seminar in Mediated Communication; Media Effects**

The examination of special topics related to the study of mediated communication.

0101	Xiaoli Nan Th 3:30pm - 6:30pm	Seats (Total: 15) MMH 0110

COMM738D **Seminar in Mediated Communication; Intro to Digital Studies in the Arts and Humanities**

The examination of special topics related to the study of mediated communication.

Cross-listing with MITH610. Credit only granted for MITH610 or COMM738D. An introduction to digital studies in the arts and humanities, broadly conceived as the critical, creative, and practical engagement with digital media, methods, tools, and experiences, as well as the theoretical and conceptual bases for understanding them.

0101	Catherine Steele Tu 3:30pm - 6:30pm	Seats (Total: 15) SKN 3117

COMM798 **Independent Study**

(Perm req)

An individual course designed for intensive study or research of problems in communication.

Contact department for information to register for this course.

COMM799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

COMM888 **Doctoral Practicum in Communication**

(Perm req)

Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

COMM889 **Doctoral Tutorial in Communication**

(Perm req)

Individual research in communication.

Contact department for information to register for this course.

COMM898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

COMM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

CPBE College Park Scholars-Business, Society, and Economy Spring 2024

CPBE230 **College Park Scholars: Business, Society & the Economy Internship Practicum**

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised internship project in an area related to business, society and the economy.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Obioma Akaigwe, Oliver Schlake	Seats (Total: 30)
	W 6:00pm - 7:00pm	CCC 1205

CPBE240 **College Park Scholars: Business, Society & the Economy Service-Learning Practicum**

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised Service-Learning project in an area related to business, society and the economy.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Obioma Akaigwe, Oliver Schlake	Seats (Total: 30)
	W 6:00pm - 7:00pm	CCC 1205

CPBE250 **College Park Scholars: Business, Society & the Economy Research Practicum**

Prerequisite: CPBE100. Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Supervised research project in an area related to business, society and the economy.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Obioma Akaigwe, Oliver Schlake	Seats (Total: 30)
	W 6:00pm - 7:00pm	CCC 1205

CPET College Park Scholars-Environment, Technology & Economy Spring 2024

CPET101 **College Park Scholars: Environment, Technology & Economy First-Year Colloquium II**

Prerequisite: CPET100. Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Introductory colloquium II: Continued examination of issues related to the convergence of the environment, technology and the economy. Group projects in sustainable development.

0101	Dani Moore, Tim Knight	Seats (Total: 78)
	TuTh 4:00pm - 5:30pm	ESJ 1215

CPET230 **College Park Scholars: Environment, Technology & Economy Internship Practicum**

Prerequisite: CPET200. Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET) program.

Supervised internship project in an area related to the environment, technology and the economy.

0101	Tim Knight, Dani Moore M 4:00pm - 5:10pm	Seats (Total: 50) CCC 1100

CPET240 **College Park Scholars: Environment, Technology & Economy Service-Learning Practicum**

Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET), Science, Technology & Society (CPSS), Arts (CPSA) and Business, Society, & Economy (CPBE) programs.

Supervised Service-Learning project in an area related to the environment, technology and the economy.

Restricted to students in the Environment, Technology, and Economy program (CPET).

0101	Tim Knight, Dani Moore M 4:00pm - 5:10pm	Seats (Total: 24) CCC 1100

CPET250 **College Park Scholars: Environment, Technology & Economy Research Practicum**

Prerequisite: CPET200. Restriction: Students must be matriculated into the College Park Scholars Environment, Technology & the Economy (CPET) program.

Supervised research project in an area related to the environment, technology and the economy.

0101	Tim Knight, Dani Moore M 4:00pm - 5:10pm	Seats (Total: 14) CCC 1100

CPGH College Park Scholars-Global Public Health Spring 2024

CPGH101 **College Park Scholars: Global Public Health First-Year Colloquium II**

Prerequisite: CPGH100. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Using case studies, students will examine necessary components to design successful public health interventions.

Case Studies in Global Public Health

0101	Angshuman Kashyap, Janay Johnson W 2:00pm - 3:15pm	Seats (Total: 90) CCC 1100

CPGH230 **College Park Scholars: Global Public Health - Internship Practicum**

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised internship project in an interest area related to global public health.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Haley Clark, Angshuman Kashyap, Janay Johnson M 3:00pm - 3:50pm	Seats (Total: 36) CCC 1100

CPGH240 **College Park Scholars: Global Public Health Service-Learning Practicum**

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised Service-Learning project in an interest area related to global public health.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Haley Clark, Janay Johnson, Angshuman Kashyap M 3:00pm - 3:50pm	Seats (Total: 30) CCC 1100

CPGH250 **College Park Scholars: Global Public Health Research Practicum**

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Supervised research project in an interest area related to global public health.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Janay Johnson, Angshuman Kashyap, Haley Clark M 3:00pm - 3:50pm	Seats (Total: 25) CCC 1100

CPGH270 **College Park Scholars: Global Public Health Education Abroad Practicum**

Prerequisite: CPGH200. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Education abroad experience in an interest area related to global public health.

0101	Angshuman Kashyap, Elisabeth Maring, Janay Johnson, Haley Clark M 3:00pm - 3:50pm	Seats (Total: 5) CCC 1100

CPJT College Park Scholars-Justice and Legal Thought Spring 2024

CPJT101 **Colloquium in Justice and Legal Thought**

An exploration of contemporary issues related to justice and legal thought.

0101	Justine DeCamillis M 2:00pm - 3:15pm	Seats (Total: 75) CCC 1205

CPJT230 **Capstone for Justice and Legal Thought: Internship**

The capstone of the four-semester College Park Scholars Justice and Legal thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform practicum internships in professional law related settings. In all settings, students must interact directly with legal professionals in law related fields and through law-related institutions under the supervision of legal professionals and program staff. In conjunction with the experiential component, students will synthesize their experience within the learning outcomes of the Justice and Legal Thought Program through an innovative final project culminating in a poster presentation.

0101	Justine DeCamillis, Evan Ash Contact instructor or department for details.	Seats (Total: 25)

CPJT240 **Capstone for Justice and Legal Thought: Service-Learning**

The capstone of the four-semester College Park Scholars Justice and Legal Thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform practicum volunteer experiences in professional law related settings. In all settings, students must interact directly with legal professionals in law related fields and through law-related institutions under the supervision of legal professionals and program staff. In conjunctions with the experiential component, students will synthesize their experience within the learning outcomes of the Justice and Legal Thought program through an innovative final project culminating in a poster presentation.

0101	Justine DeCamillis, Evan Ash Contact instructor or department for details.	Seats (Total: 25)

CPJT250 **Capstone for Justice and Legal Thought: Research**

The capstone of the four-semester College Park Scholars Justice and Legal Thought citation program is an exploration of justice and law within a rigorous academic and experiential framework. Students must develop and perform applied research in a law related setting. Students must interact directly with legal professionals under the supervision of program staff. Students will synthesize their experience within the learning outcomes of the Justice and Legal Thought Program through an innovative final research project culminating in a poster presentation.

0101	Justine DeCamillis, Rithvik Yarlagadda, Evan Ash W 4:00pm - 4:50pm Contact instructor or department for details.	Seats (Total: 35) CCC 1111

CPMS College Park Scholars-Media, Self and Society Spring 2024

CPMS101 **College Park Scholars: Media, Self & Society First-Year Colloquium II**

Prerequisite: CPMS100. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Examination of the media's coverage of topical issues.

0101	Alison Burns	Seats (Total: 95)
	Th 12:30pm - 1:45pm	CCC 1100

CPMS230 **College Park Scholars: Media, Self & Society - Internship Practicum**

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised internship project in an area related to media, self and society.

0101	Alison Burns	Seats (Total: 30)
	Contact instructor or department for details.	

CPMS240 **College Park Scholars: Media, Self & Society - Service-Learning Practicum**

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised Service-Learning project in an area related to media, self and society.

0101	Alison Burns	Seats (Total: 15)
	Contact instructor or department for details.	

CPPL College Park Scholars-Public Leadership Spring 2024

CPPL101 **College Park Scholars: Public Leadership First-Year Colloquium II**

Prerequisite: CPPL100. Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Continued examination of issues related to public leadership. Development of team, community-based learning project proposals.

0101	Susannah Washburn	Seats (Total: 80)
	W 3:30pm - 4:45pm	CCC 1205

CPSA College Park Scholars-Arts Spring 2024

CPSA101 **College Park Scholars: Arts First-Year Colloquium II**

Prerequisite: CPSA100. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Introductory colloquium II: Arts workshops and Arts Festival.

0101	Harold Burgess, Heather-Erin Bremenstuhl, Alexandra Lynch M 6:00pm - 7:30pm	Seats (Total: 75) CCC 1100

CPSA149 **College Park Scholars: Arts Service-Learning Outreach**

Service-Learning outreach to Prince George's County schools and non-profit agencies.

0101	Heather-Erin Bremenstuhl, Harold Burgess Th 5:00pm - 7:00pm	Seats (Total: 20) Location: TBA

CPSA201 **College Park Scholars: Arts Second-Year Colloquium II**

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Advanced colloquium II: Arts workshop and Arts Festival.

0101	Harold Burgess, Heather-Erin Bremenstuhl, Alexandra Lynch Tu 6:00pm - 7:30pm	Seats (Total: 75) CCC 1100

CPSA240 **College Park Scholars: Arts Service-Learning Practicum**

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised Service-Learning project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess Th 5:00pm - 7:00pm	Seats (Total: 15) Location: TBA

CPSA250 **College Park Scholars: Arts Research Practicum**

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised research project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess W 12:00pm - 1:40pm	Seats (Total: 15) CCC 1105
0201	Heather-Erin Bremenstuhl, Harold Burgess W 2:00pm - 3:40pm	Seats (Total: 15) CCC 1105

0301	Heather-Erin Bremenstuhl, Harold Burgess Th 2:00pm - 3:40pm	Seats (Total: 15) CCC 1105

CPSA260 **College Park Scholars: Arts Peer-Teaching Practicum**

Prerequisite: CPSA200. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 200, students will earn General Education Scholarship-in-Practice credit.

Supervised peer-teaching project in an area related to the arts.

0101	Heather-Erin Bremenstuhl, Alexandra Lynch, Harold Burgess MTu 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 10) Location: TBA
0201	Heather-Erin Bremenstuhl, Alexandra Lynch, Harold Burgess MTu 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 10) Location: TBA
0301	Alexandra Lynch, Heather-Erin Bremenstuhl, Harold Burgess MTu 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 10) Location: TBA

CPSF College Park Scholars-Life Sciences Spring 2024

CPSF101 **College Park Scholars: Life Sciences First-Year Colloquium II**

Prerequisite: CPSF100. Restriction: Students must be enrolled in the College Park Scholars Life Sciences (CPSF) program.

Further examination of issues related to the life sciences.

0101	Erin Thomson W 3:30pm - 5:00pm Class time/details on ELMs	Seats (Total: 78) CCC 1100 ONLINE

CPSG College Park Scholars-Science and Global Change Spring 2024

CPSG101 **College Park Scholars: Science & Global Change First-Year Colloquium II**

Prerequisite: CPSG100. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Introductory colloquium II: Continued examination of issues related to science and global change.

0101	Thomas Holtz	Seats (Total: 91)
	Tu 3:30pm - 4:50pm	CCC 1205

CPSG230 **College Park Scholars: Science & Global Change - Internship Practicum**

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised internship in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 75)
	Contact instructor or department for details.	

CPSG240 **College Park Scholars: Science & Global Change - Service-Learning Practicum**

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised Service-Learning experience in an interest area related to science and global change.

0101	John Merck, Thomas Holtz	Seats (Total: 25)
	Contact instructor or department for details.	

CPSG250 **College Park Scholars: Science & Global Change - Research Practicum**

Prerequisite: CPSG200. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Supervised research experience in an interest area related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 25)
	Contact instructor or department for details.	

CPSN College Park Scholars-International Studies Spring 2024

CPSN101 **College Park Scholars: International Studies First-Year Colloquium II**

Prerequisite: CPSN100. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program. Additional information: When paired with the successful completion of CPSN 100, students will earn Diversity/Cultural Competence General Education credits.

Introductory colloquium II: Continued examination of issues related to international studies.

0101	Stacy Kosko	Seats (Total: 24)
	Tu 2:00pm - 3:15pm	CCC 1205

0102	Stacy Kosko Tu 2:00pm - 3:15pm	Seats (Total: 24) CCC 1205
0103	Stacy Kosko Tu 2:00pm - 3:15pm	Seats (Total: 24) CCC 1205

CPSN230 **College Park Scholars: International Studies - Internship Practicum**

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised internship project in an area related to international studies.

0101	Sarah Kilmer Contact instructor or department for details.	Seats (Total: 45)

CPSN240 **College Park Scholars: International Studies - Service-Learning Practicum**

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised Service-Learning project in an area related to international studies.

0101	Sarah Kilmer Contact instructor or department for details.	Seats (Total: 20)

CPSN250 **College Park Scholars: International Studies - Research Practicum**

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised research in an area related to international studies.

0101	Sarah Kilmer, Karim Makkawy Contact instructor or department for details.	Seats (Total: 25)

CPSP College Park Scholars Program Spring 2024

CPSP239 **Practicum: Internship**

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP239P **Practicum: Internship**

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP259I **Practicum: Research**

Supervised research project in interest area related to the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP259J **Practicum: Research; Media, Self and Society**

Supervised research project in interest area related to the students' College Park Scholars program.

Restricted to College Park Scholars-Media, Self and Society.

0101	Alison Burns	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP269 **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269E **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269G **Practicum: Peer Teaching; Science and Global Change**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269J **Practicum: Peer Teaching**

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP318 **College Park Scholars Special Topics; STEAM Rising: Exploring the Fusion of Art and Technology to Build a More Equitable Society**

Special Topics learning opportunities in College Park Scholars.

Contact department for information to register for this course.

CPSP339J **Advanced Practicum: Internship**

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

Contact department for information to register for this course.

CPSP339P **Advanced Practicum: Internship**

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

0101	Susannah Washburn	Seats (Total: 15)
	Contact instructor or department for details.	

CPSP359G **Advanced Practicum: Research**

Advanced supervised internship experience.

0101	Thomas Holtz, John Merck	Seats (Total: 25)
	Contact instructor or department for details.	

CPSP359S **Advanced Practicum: Research**

Advanced supervised internship experience.

0101	Benjamin Parks	Seats (Total: 24)
	TuTh 11:00am - 12:15pm	CCC 1200

CPSP369A **Advanced Practicum: Peer Teaching; Arts**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369E **Advanced Practicum: Peer Teaching**

Supervised advanced practicum in peer instruction.

0101	Tim Knight	Seats (Total: 7)
	Contact instructor or department for details.	
0102	Tim Knight	Seats (Total: 5)
	Contact instructor or department for details.	

CPSP369G **Advanced Practicum: Peer Teaching; Science and Global Change**

(Perm req)

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369N **Advanced Practicum: Peer Teaching**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369P **Advanced Practicum: Peer Teaching; Public Leadership**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369T **Advanced Practicum: Peer Teaching; Science, Technology, and Society**

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP379D **Advanced Practicum: Study Abroad; United Arab Emirates: Global Immersion**

Advanced, supervised study-abroad experience.

Contact department for information to register for this course.

CPSP386E **Experiential Learning**

Contact department for information to register for this course.

CPSP388E **Advanced Special Topics in College Park Scholars; Pedagogy and Design in ETE**

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

Contact department for information to register for this course.

CPSS College Park Scholars-Science, Technology and Society Spring 2024

CPSS101 **College Park Scholars: Science, Technology & Society First-Year Colloquium II**

Prerequisite: CPSS100. Restriction: Students must be enrolled in the College Park Scholars Science, Technology & Society (CPSS) program.

Continued examination of issues related to science, technology and society.

0101	Christine Alexander, Nicole Mogul	Seats (Total: 90)
	M 4:00pm - 5:20pm	CCC 1205

CPSS220 **The Future of Communicating Science**

Restriction: Must be in the College Park Scholars Science, Technology or Society program or have permission of the program.

How can scientists communicate their work effectively? The field of science communication ventures that the answer is not simply a matter of improving capacity (e.g., because people lack scientific information, scientists lack communication skills, or both). Rather, it calls for sustained collaboration and empathy between laypersons and experts. In this hands-on, experiential course, we use a model of cultural competency to put forth solutions to bridge the expert-lay divide. We investigate typical venues in which science is communicated (museums, YouTube videos, federal agency websites, and much much more) and study best practices for communication. Then we explore emerging venues that support sustained contact between so-called "lay citizens" and scientific or technical experts (dance/improv techniques, ethnographic methods and citizen science). Students learn to use cross-cultural perspectives as a basis to pilot and test ways of strengthening relationships and improving communication.

0101	Nicole Mogul	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	SPH 0302

CPSS225 **College Park Scholars Capstone: Science, Technology, and Society**

Prerequisite: CPSS100. Restriction: Must be in the College Park Scholars Science, Technology & Society (CPSS) program. Formerly: CPSP227.

Exploration and understanding of ways science and technology shape and are shaped by society.

0301	Roan Parrish TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1115

CPSS240 **College Park Scholars: Science, Technology & Society - Service-Learning Practicum**

Restriction: Matriculation into the College Park Scholars Science, Technology & Society (CPSS) program; or permission of instructor.

Supervised Service-Learning practicum in issues related to science, technology and society.

Most of the class times will be spent at area Prince George's schools with partnering robotics teams. Consult the class requirements and locations provided in the syllabus at the beginning of the class. This course requires a $61 background check fee for working in Prince George's County K-12 schools.

0101	Kuan-Hung Lo TuTh 3:30pm - 4:45pm *Robotics Service Learning*	Seats (Total: 30) CCC 1200

CPSS340 **College Park Scholars: Infrastructure and Society**

Restriction: Must be currently enrolled in a College Park Scholars program. Credit only granted for: CPSP349T or CPSS340. Formerly: CPSP349T.

One of the most important, and underappreciated, aspects of our society is its infrastructure (roads, buildings, communication systems, water delivery systems, sanitation systems, energy systems, etc.). We often take for granted the services infrastructure bring us. As a consequence, the United States, which at one time was a world leader in creating infrastructure, is experiencing an infrastructure crisis. Furthermore, not everyone experiences this issue equally. This course is designed to identify the root causes of the crisis. You will explore emerging social, political, legal, cultural, and social justice issues associated with the building and maintenance of infrastructure from the perspective of Science and Technology Studies (STS) and engineers. You will work with a volunteer corps of professional engineers from a variety of disciplines on a service-learning project designed to assess the safety and vitality of infrastructure.

0101	David Tomblin TuTh 2:00pm - 3:15pm	Seats (Total: 20) CBD 1140

DANC Dance Spring 2024

DANC109 **Choreography I: Improvisation**

(Perm req)

An introduction to the process of spontaneous movement discovery involving solo and group movement experiences.

Students must pay a $25.00 lab fee.

5501	Sara Pearson	Seats (Total: 14)		
	TuTh 11:00am - 12:15pm	PAC 1912	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC118 **Beginning Tap**

Introduction to tap for the beginning student.

Students must pay a $25 course fee.

5501	Jalen Rose	Seats (Total: 25)		
	TuTh 3:30pm - 4:45pm	PAC 1908	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC128 **Fundamentals of Ballet**

Introduction to ballet technique and terminology for the beginning student.

Students must pay a $25.00 lab fee.

5501	Mary Ford	Seats (Total: 25)		
	TuTh 9:30am - 10:45am	PAC 1908	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC138A **Global Dance Forms; Musical Theatre Jazz**

Movement course. Traditional dances and music of selected cultures.

Students must pay a $25 lab fee.

5501	Amber Daniels	Seats (Total: 20)		
	TuTh 2:00pm - 3:15pm	PAC 1912		
	Class time/details on ELMs	ONLINE	Lab	

DANC138J **Global Dance Forms; Afro Jazz**

Movement course. Traditional dances and music of selected cultures.

5501	Kaela Lawrence	Seats (Total: 25)		
	MW 3:30pm - 4:45pm	PAC 1908	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC148 **Fundamentals of Modern Dance**

Introduction to modern dance with emphasis on the development of fundamental movement skills.

Students must pay a $25.00 lab fee.

5501	Christina Collins TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 25) PAC 1912 ONLINE	 Lab Lab

DANC149 **Fundamentals of Modern Dance II**

Continuation of the development of axial and locomotor movement skills with emphasis on the development of functional alignment, musicality, range of movement, coordination, and movement memory.

Students must pay a $25 lab fee.

5501	Patrik Widrig MW 1:00pm - 2:15pm Class time/details on ELMs	Seats (Total: 15) PAC 1908 ONLINE	 Lab

DANC179 **Movement Integration**

(Perm req)

Conditioning and re-patterning techniques for achieving integrated movement.

Students must pay a $25 lab fee.

5501	Adriane Fang TuTh 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 12) PAC 1912 ONLINE	 Lab

DANC199 **Practicum in Choreography, Production and Performance I**

(Perm req)

Choreography, production, and performance of student works, both on and off campus.

Contact department for information to register for this course.

DANC200 **Introduction to Dance**

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

0101	Daniel Miramontes TuTh 12:30pm - 1:45pm	Seats (Total: 25) PLS 1146
0201	Peter Pattengill TuTh 2:00pm - 3:15pm	Seats (Total: 25) PLS 1146
0301	Mher Kandoyan TuTh 11:00am - 12:15pm	Seats (Total: 25) HBK 1112

0401	Kevin Clark	Seats (Total: 25)		
	TuTh 3:30pm - 4:45pm	PLS 1113		

DANC207 **Choreography II: The Creative Process**

(Perm req)

Prerequisite: DANC109. Restriction: Permission of ARHU-Dance department.

Explorations in movement, music, words, objects, and environments through improvisation and choreographic problem solving.

Students must pay a $25.00 lab fee.

5501	Patrik Widrig	Seats (Total: 16)		
	MW 11:00am - 12:50pm	PAC 1908	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC218 **Modern Dance I**

(Perm req)

Development of heightened body awareness, breath support, dynamic alignment, and spatial awareness. Focus on rhythmic clarity and musicality.

Prerequisite: permission of department. Students must pay a $25 lab fee.

5501	Adriane Fang, Alvin Mayes	Seats (Total: 15)		
	MWF 1:00pm - 2:30pm	PAC 1912	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC219 **Modern Dance II**

(Perm req)

Continuation of the elements addressed in DANC218 with an added focus on momentum, the use of counter-tension, stability/mobility, suspension, and dynamic range.

Prerequisite: DANC218 and permission of department. Students must pay a $25 lab fee.

5501	Alvin Mayes, Adriane Fang	Seats (Total: 16)		
	MWF 1:00pm - 2:30pm	PAC 1912	Lab	
	Class time/details on ELMs	ONLINE	Lab	

DANC228 **Ballet I**

Barre and center work for alignment, strength, flexibility and coordination. Introduction to ballet terminology.

Students must pay a $25 lab fee.

5501	Zoe Walders	Seats (Total: 10)		
	TuTh 2:00pm - 3:15pm Class time/details on ELMs	PAC 1908 ONLINE	Lab Lab	

DANC229 **Ballet II**

Continuation of DANC228.

Students must pay a $25 lab fee.

5501	Zoe Walders	Seats (Total: 10)		
	TuTh 2:00pm - 3:15pm Class time/details on ELMs	PAC 1908 ONLINE	Lab Lab	

DANC299 **Practicum in Choreography, Production and Performance II**

(Perm req)

Continuation of DANC199.

Contact department for information to register for this course.

DANC318 **Modern Dance III**

(Perm req)

Continuation of the elements addressed in DANC219 with an added focus on off-verticality, spirals, complex level changes, more complex and extended phrasing, responsiveness to accompaniment, vocalization.

Prerequisite: DANC219 an permission of department. Students must pay $25 lab fee.

5501	Alvin Mayes, Kendra Portier	Seats (Total: 10)		
	MWF 9:00am - 10:30am Class time/details on ELMs	PAC 1908 ONLINE	Lab Lab	

DANC319 **Modern Dance IV**

(Perm req)

Continuation of the elements addressed in DANC318 with an added focus on movement subtlety and complexity, and stylistic demands.

Prerequisite: DANC318 and permission of department. Students must pay $25 lab fee.

5501	Alvin Mayes, Kendra Portier	Seats (Total: 10)		
	MWF 9:00am - 10:30am Class time/details on ELMs	PAC 1908 ONLINE	Lab Lab	

DANC328 **Ballet III**

(Perm req)

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	Lab
	Class time/details on ELMs	ONLINE	Lab

DANC329 **Ballet IV**

(Perm req)

Continuation of DANC328.

Students must pay a $25.00 lab fee.

5501	Kendra Portier	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	PAC 1908	Lab
	Class time/details on ELMs	ONLINE	Lab

DANC338C **Dance Techniques; Contact Improvisation**

(Perm req)

Intermediate/Advanced level physical practice that sources a range of dance practices relevant to the current dance field in order to expose students to a plurality of techniques as a form of inclusive investigation.

Students must pay a $25 lab fee. Students must have previous dance experience. Email Brit Falcon at bfalcon1@umd.edu for questions

5501	Britney Falcon	Seats (Total: 15)	
	W 6:00pm - 8:45pm	PAC 1611	
	Class time/details on ELMs	ONLINE	Lab

DANC338P **Dance Techniques; Advanced Hip Hop**

Intermediate/Advanced level physical practice that sources a range of dance practices relevant to the current dance field in order to expose students to a plurality of techniques as a form of inclusive investigation.

Students must pay a $25 lab fee.

5501	Ama Law	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	PAC 1611	
	Class time/details on ELMs	ONLINE	Lab

DANC338T **Dance Techniques; Int./Adv Tap**

Intermediate/Advanced level physical practice that sources a range of dance practices relevant to the current dance field in order to expose students to a plurality of techniques as a form of inclusive investigation.

Students must pay a $25 lab fee

5501	Gerson Lanza Ruiz TuTh 12:30pm - 1:45pm	Seats (Total: 20) PAC 1908

DANC383 **Dance History & Theory**

(Perm req)

Restriction: Permission of ARHU-Dance department. Credit only granted for: DANC283 or DANC383. Formerly: DANC283.

With a primary focus on Western concert dance from the 20th and 21st centuries, this course proposes an understanding of dance as it is situated in historical and cultural contexts. Rather than proposing a canon of "masterworks", this course interrogates choreography and other dance practices from multiple perspectives such as feminist theories, race, gender, and sexuality studies.

0101	Ama Law TuTh 9:30am - 10:45am	Seats (Total: 15) PAC 1815

DANC398 **Directed Studies in Dance**

(Perm req)

Contact department for information to register for this course.

DANC399 **Practicum in Choreography, Production and Performance III**

Continuation of DANC299.

0201	Sara Pearson Contact instructor or department for details.	Seats (Total: 10)
0301	Ama Law Contact instructor or department for details.	Seats (Total: 10)
0401	Alvin Mayes Contact instructor or department for details.	Seats (Total: 10)
0501	Ama Law Contact instructor or department for details.	Seats (Total: 10)
0701	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

1001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)	

DANC418 **Contemporary Modern**

Physical practice that sources postmodern dance influences, endurance training, improvisation, and choreographic composition to present movement practices as a form of investigation.

5501	Javier Padilla Garcia TuTh 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 12) PAC 1611 ONLINE	 Lab Lab

DANC448 **Modern Dance V**

(Perm req)

Complex phrases of modern dance movement with emphasis on articulation and expression.

Prerequisite: DANC319 and audition. Students must pay a $25.00 lab fee.

5501	Kendra Portier, Adriane Fang MWF 9:00am - 10:30am	Seats (Total: 10) PAC 1912	 Lab

DANC449 **Modern Dance VI**

(Perm req)

Continuation of DANC448.

Prerequisite: DANC448. Students must pay a $25.00 lab fee.

5501	Adriane Fang, Kendra Portier MWF 9:00am - 10:30am Class time/details on ELMs	Seats (Total: 6) PAC 1912 ONLINE	 Lab Lab

DANC468 **Dance Repertory**

(Perm req)

Form, content, music, design and performance of modern dance works.

Students must pay a $25.00 lab fee.

5501	Kendra Portier TuTh 3:30pm - 5:00pm Class time/details on ELMs	Seats (Total: 12) PAC 1912 ONLINE	 Lab Lab

DANC488 **Project-Based Learning**

(Perm req)

A specific project, is addressed, in dance from the perspectives of the investigator, the creator/choreographer, and the performer. Projects are cross-disciplinary and/or cross-cultural, and may involve both on- and off-campus experiences.

Students must pay a $25 lab fee.

5501	Scot Reese, Alvin Mayes MW 3:30pm - 5:00pm	Seats (Total: 14) PAC 1912	Lab

DANC499 **Practicum in Choreography, Production and Performance IV**

Advanced workshop in dance presentation, including performing, production and planned field experiences.

0501	Ama Law Contact instructor or department for details.	Seats (Total: 30)

DANC611 **Dance Technology and Media**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Project-based development of media and technological support for dance performance, archiving, and portfolio design, development and implementation.

Students must pay a $25.00 lab fee.

5501	Samuel Crawford M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 5) PAC 3731 ONLINE	Lab

DANC628 **Graduate Ballet**

Execution of the vocabulary of ballet movement with technical accuracy.

5501	Kendra Portier TuTh 11:00am - 12:15pm	Seats (Total: 5) PAC 1908	Lab

DANC648 **Advanced Modern Dance Technique I**

Professional level training in contemporary dance techniques.

Students must pay a $25 lab fee.

5501	Kendra Portier, Adriane Fang MWF 9:00am - 10:30am	Seats (Total: 8) PAC 1912	Lab

DANC649 **Advanced Modern Dance Technique II**

A continuation of DANC 648.

Students must pay a $25 lab fee.

5501	Adriane Fang, Kendra Portier	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC679 **Graduate Dance Performance**

An advanced performance course focusing on the restagings from noted scores of the choreographic works of significant artists in the field.

Contact department for information to register for this course.

DANC689G **Special Topics in Dance; Advanced Hip Hop**

Special Topics in dance theory, research or creative projects.

Students must pay a $25 lab fee.

5501	Ama Law	Seats (Total: 5)	
	TuTh 2:00pm - 3:15pm	PAC 1116	Lab

DANC689I **Special Topics in Dance; Pedagogy Practicum: Dance History**

(Perm req)

Special Topics in dance theory, research or creative projects.

0101	Ama Law	Seats (Total: 2)
	TuTh 9:30am - 10:45am	PAC 1815

DANC689K **Special Topics in Dance; Stock Motion Performances**

Special Topics in dance theory, research or creative projects.

Cross-listed with THET669E and DANC689K. Credit only granted for TDPS458K, THET669E, or DANCE689K. Student must pay a $25 lab fee. Students will build a series of performance studies using Unity software and stock animation available on public motion libraries. Students will string together animations in various patterns and interactive systems, and design performance environments for them. Students will gain an understanding of motion that is assumed "default," "normal," and "useful," and use their work to interrogate and challenge such assumptions and their social and political connotations. Then, students will try to recreate their digital action sequences in physical space, and re-translate them back into the virtual, building a new and improvednon-stock motionlibrary."

5501	Kate Ladenheim	Seats (Total: 10)
	MW 12:00pm - 1:50pm	PAC 2727

DANC689N **Special Topics in Dance; Dance Pedagogy - Creative Process**

Special Topics in dance theory, research or creative projects.

0101	Patrik Widrig	Seats (Total: 2)	
	MW 11:00am - 12:50pm	PAC 1908	Lab

DANC689Q **Special Topics in Dance; Motion Capture for Mixed Reality Performance**

(Perm req)

Special Topics in dance theory, research or creative projects.

Prerequisites: A minimum grade of C- in IMDM290. Restriction: Permission of department. Cross-listed with TDPS458P and THET669Q. Credit only granted for TDPS458P, DANCE689Q, or THET669Q. This class will introduce students to creative and technical application for motion capture. Using analog, inertial, optical, and AI systems, students will engage in collaborative projects that span digital and physical spaces. Students will also engage with the history of mocap development, as well as the aesthetics and ethics surrounding digital motion.

0101	Kate Ladenheim	Seats (Total: 8)	
	TuTh 10:00am - 11:50am	IRB 0110	

DANC689R **Special Topics in Dance; Graduate Dance Repertory**

Special Topics in dance theory, research or creative projects.

Students must pay a $25 lab fee.

5501	Kendra Portier	Seats (Total: 5)	
	TuTh 3:30pm - 5:00pm	PAC 1912	Lab

DANC698 **Independent Study in Dance**

(Perm req)

Directed independent study in theoretical topics.

Contact department for information to register for this course.

DANC708 **Graduate Choreography II: Collaboration; Collaborative Work**

Collaborative work across disciplines and genres.

Students must pay a $25.00 lab fee.

5501	Sara Pearson	Seats (Total: 5)	
	MW 11:00am - 12:50pm	PAC 1912	Lab
	Class time/details on ELMs	ONLINE	Lab

DANC777 **Internship in Dance**

(Perm req)

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Internship in dance advocacy, administration, education, community building, choreography, or performance with an agency off campus and with a national or international profile.

0701	Kendra Portier Contact instructor or department for details.	Seats (Total: 5)

DANC779 **Master's Tutorial for Performance**

(Perm req)

Supervised performance experience for advanced dancers.

0101	Patrik Widrig Contact instructor or department for details.	Seats (Total: 5)
0201	Sara Pearson Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	Kendra Portier Contact instructor or department for details.	Seats (Total: 5)
0701	Crystal Davis Contact instructor or department for details.	Seats (Total: 10)
1001	Adriane Fang Contact instructor or department for details.	Seats (Total: 5)

DANC784 **Dance in a Global Context**

(Perm req)

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Topics that illuminate dance in global context and provides an overview of methods, challenges and perspectives to the study of dance cross-culturally will be considered. Simultaneously, surveys select dance practices spanning many geographical areas, and offers insight into the diverse social, cultural, religious, and political environments from which dance extends.

0101	Susan Miller, Maura Keefe W 1:00pm - 3:30pm	Seats (Total: 10) PAC 1924

DANC799 **Master's Thesis Project**
Contact department for information to register for this course.

DATA Data Science and Analytics Spring 2024

DATA100 **Elementary Statistics and Probability**

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any STAT course with a prerequisite of MATH141. Cross-listed with: STAT100. Credit only granted for: DATA100 or STAT100.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin MWF 10:00am - 10:50am M 11:00am - 12:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion
0112	Matthew Griffin MWF 10:00am - 10:50am M 12:30pm - 1:45pm	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion
0121	Matthew Griffin MWF 10:00am - 10:50am Tu 9:30am - 10:45am	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion
0122	Matthew Griffin MWF 10:00am - 10:50am Tu 11:00am - 12:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion
0123	Matthew Griffin MWF 10:00am - 10:50am Tu 12:30pm - 1:45pm	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion
0124	Matthew Griffin MWF 10:00am - 10:50am Tu 2:00pm - 3:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion
0131	Matthew Griffin MWF 10:00am - 10:50am W 11:00am - 12:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	Discussion

0141	Matthew Griffin MWF 10:00am - 10:50am Th 12:30pm - 1:45pm	Seats (Total: 25) ESJ 0224 PHY 4206	Discussion
0211	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0212	Matthew Griffin MWF 12:00pm - 12:50pm M 2:00pm - 3:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	Discussion
0221	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 29) ESJ 0202 PHY 1219	Discussion
0222	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 WDS 0104	Discussion
0223	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 29) ESJ 0202 PHY 2211	Discussion
0224	Matthew Griffin MWF 12:00pm - 12:50pm Tu 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0231	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0241	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 27) ESJ 0202 PHY 4206	Discussion
0311	Jonathan Fernandes MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 27) ESJ 0202 MTH B0423	Discussion

0312	Jonathan Fernandes MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 27) ESJ 0202 MTH B0423		Discussion
0321	Jonathan Fernandes MWF 2:00pm - 2:50pm W 11:00am - 12:15pm	Seats (Total: 27) ESJ 0202 MTH B0423		Discussion
0322	Jonathan Fernandes MWF 2:00pm - 2:50pm W 12:30pm - 1:45pm	Seats (Total: 27) ESJ 0202 MTH B0423		Discussion
0331	Jonathan Fernandes MWF 2:00pm - 2:50pm Th 9:30am - 10:45am	Seats (Total: 27) ESJ 0202 EGR 3102		Discussion

DATA110 **Applications of R for Data Science**

Prerequisite: DATA100, STAT100, or MATH135; or any 400-level STAT course. Cross-listed with: STAT110. Credit only granted for: STAT110 or DATA110.

Intended to prepare students for subsequent courses requiring computation with R, providing powerful and easy to use tools for statistical data analysis. Covers basics of R and R Studio including file handling, data simulation, graphical displays, vector and function operations, probability distributions, and inferential techniques for data analysis.

0101	Susan Mazzullo **Meets January 24, 2024 - March 13, 2024** Contact instructor or department for details.	Seats (Total: 190)	

DATA120 **Python Programming for Data Science**

Prerequisite: STAT100, MATH135, or any 400-level STAT course.

An introduction to programming in Python language, using Jupyter Notebooks and Python scripts. Covers variables, conditionals, loops, functions, lists, strings, tuples, sets, dictionaries, files and visualization.

0101	Mohammad Nayeem Teli **Meets March 25, 2024 - May 9, 2024** Contact instructor or department for details.	Seats (Total: 170)	

DATA200 **Knowledge in Society: Science, Data and Ethics**

Prerequisite: STAT100, MATH135, or any 400-level STAT course.

Course dedicated to the study of ethical issues associated with data science, including data collections, gathering existing data, ethical use of data, data analysis with teams, repeatability and reproducibility of data analysis, and academic and scientific integrity.

0101	Fardina Alam TuTh 3:30pm - 4:45pm	Seats (Total: 54) IRB 2107

DATA250 Discrete Mathematics

Prerequisite: DATA110 or DATA120; and MATH141.

Introduction to basic discrete mathematical and linear algebraic structures and use of these mathematical structures to solve programming problems. Logic, set theory, formal proof methodology, functions, and basic linear algebra.

0101	Todd Rowland MWF 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 25) ESJ B0320 ESJ B0320

DATA320 Introduction to Data Science

Prerequisite: DATA110 or DATA120; and DATA200 and DATA250; or by permission of the DATA Program Director. Restriction: Must not be a Computer Science major. Jointly offered with: CMSC320. Credit only granted for: CMSC320 or DATA320.

An introduction to data science i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Fardina Alam TuTh 12:30pm - 1:45pm	Seats (Total: 20) HJP 0226
0201	Mohammad Nayeem Teli TuTh 2:00pm - 3:15pm	Seats (Total: 20) IRB 0324

DATA350 Data Visualization and Presentation

Prerequisite: STAT100, MATH135, or any 400 level STAT course; and DATA110 or DATA120.

Introduction to effective and intuitive visual representations of data, including customizing graphics, plotting arrays, statistical graphics, and representing time series.

0101	Vincent Lyzinski MWF 11:00am - 11:50am	Seats (Total: 25) CHM 2201

DATA400 Applied Probability and Statistics I

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Cross-listed with: STAT400. Credit only granted for: DATA400, ENEE324, or STAT400. Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Jonathan Fernandes MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0112	Jonathan Fernandes MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 30) ARM 0131 MTH 0106	Discussion
0121	Jonathan Fernandes MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0122	Jonathan Fernandes MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 30) ARM 0131 MTH 0106	Discussion
0123	Jonathan Fernandes MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 30) ARM 0131 MTH 0405	Discussion
0131	Jonathan Fernandes MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0132	Jonathan Fernandes MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH 0106	Discussion
0141	Jonathan Fernandes MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0142	Jonathan Fernandes MWF 10:00am - 10:50am Tu 12:00pm - 12:50pm	Seats (Total: 30) ARM 0131 MTH 0304	Discussion

0211	Matthias Wellershoff TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0401	Discussion
0212	Matthias Wellershoff TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0221	Matthias Wellershoff TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0401	Discussion
0222	Matthias Wellershoff TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0223	Matthias Wellershoff TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0409	Discussion
0231	Matthias Wellershoff TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH 0401	Discussion
0232	Matthias Wellershoff TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0241	Matthias Wellershoff TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0242	Matthias Wellershoff TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0311	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 8:00am - 8:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion

0312	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 8:00am - 8:50am	Seats (Total: 30) ARM 0135 MTH 0303	Discussion
0321	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0322	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) ARM 0135 MTH 0303	Discussion
0323	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) ARM 0135 MTH 0104	Discussion
0331	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0332	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) ARM 0135 MTH 0303	Discussion
0341	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0342	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0411	Fushuai Jiang MWF 10:00am - 10:50am Th 9:00am - 9:50am	Seats (Total: 30) MMH 1400 MTH 0304	Discussion
0421	Fushuai Jiang MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 30) MMH 1400 MTH 0304	Discussion

0431	Fushuai Jiang MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MTH 0304	Discussion
0432	Fushuai Jiang MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MTH B0427	Discussion
0441	Fushuai Jiang MWF 10:00am - 10:50am Th 12:00pm - 12:50pm	Seats (Total: 30) MMH 1400 MTH 0304	Discussion
0442	Fushuai Jiang MWF 10:00am - 10:50am Th 12:00pm - 12:50pm	Seats (Total: 30) MMH 1400 MTH B0427	Discussion

DATA603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: BIOI603, MSML603, MSQC603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Kemal Davaslioglu M 6:00pm - 8:45pm	Seats (Total: 50) PLS 1130	
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.		

DATA604 **Data Representation and Modeling**

Prerequisite: DATA601 or MSML601.

An introductory course connecting students to the most recent developments in the field of data science. It covers several fundamental mathematical concepts which form the foundations of Big Data theory. Among the topics included are Principal Component Analysis, metric learning and nearest neighbor search, elementary spectral graph theory, minimum and maximum graph cuts, graph partitions, Laplacian Eigenmaps, manifold learning and dimension reduction concepts, clustering and classification techniques such as k-means, kernel methods, Mercer's theorem, and Support Vector Machines. Some relevant concepts from geometry and topology will be also covered.

PCS1	Mestiyage Gunatilleka Th 6:00pm - 8:45pm	Seats (Total: 45) CSI 1122
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	
PCS2	Wojciech Czaja Th 6:00pm - 8:45pm	Seats (Total: 45) CSI 1121

DATA605 **Big Data Systems**

Prerequisite: DATA602. Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA605 or CMSC642. Formerly: CMSC642.

An overview of data management systems for performing data science on large volumes of data, including relational databases, and NoSQL systems. The topics covered include: different types of data management systems, their pros and cons, how and when to use those systems, and best practices for data modeling.

PCS1	Giacinto Paolo Saggese W 6:00pm - 8:45pm	Seats (Total: 65) CSI 2117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

DATA606 **Algorithms for Data Science**

Prerequisite: DATA602. Restriction: Must be in the Data Science Post-Baccalaureate Certificate of Professional Studies or Master of Professional Studies in Data Science and Analytics program. Credit only granted for: DATA606 or CMSC644. Formerly: CMSC644.

Provides an in-depth understanding of some of the key data structures and algorithms essential for advanced data science. Topics include random sampling, graph algorithms, network science, data streams, and optimization.

PCS1	Abdirisak Mohamed Tu 6:00pm - 8:45pm	Seats (Total: 65) CSI 2117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

DATA641 **Natural Language Processing**

Prerequisite: DATA603 or MSML603. Cross-listed with: MSML641. Credit only granted for: DATA641 or MSML641.

Introduces fundamental concepts and techniques involved in getting computers to deal more intelligently with human language. Focused primarily on text (as opposed to speech), the class will offer a grounding in core NLP methods for text processing (such as lexical analysis, sequential tagging, syntactic parsing, semantic representations, text classification, unsupervised discovery of latent structure), key ideas in the application of deep learning to language tasks, and consideration of the role of language technology in modern society.

PCS1	Shabnam Tafreshi	Seats (Total: 60)
	M 6:00pm - 8:45pm	CSI 2117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

ECON Economics Spring 2024

The Department of Economics enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

ECON185 **Energy: Crisis or Breakthrough?**

Will we face an energy crisis in the near future, or will technological breakthroughs solve problems? Will we destroy the environment by careless use of polluting energy, or we will find new and clean sources of energy that resolves the environmental issue once and for all? Will politicians and governments succeed in agreeing on a coherent strategy to deal with global issues related to energy, or do we expect individual countries to move in different directions and exacerbate the problems? Students will explore the demand and supply sides of the energy market and their relationships with government policies and environmental concerns. Students will also analyze empirical evidence to better understand the factors affecting energy production and consumption in the past and possible directions in the future. By examining past situations when technological change mitigated problems in energy markets, we can make informed predictions about what could happen next.

0101	Hossein Abbasi	Seats (Total: 120)
	TuTh 9:30am - 10:45am	JMZ 0220

ECON200 **Principles of Microeconomics**

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Credit only granted for: ECON200, AREC240, or AREC250. Additional information: It is recommended that students complete ECON200 before taking ECON201.

Introduces economic models used to analyze economic behavior by individuals and firms and consequent market outcomes. Applies conceptual analysis to several policy issues and surveys a variety of specific topics within the broad scope of microeconomics.

0101	Stefania Scandizzo	Seats (Total: 375)
	TuTh 9:30am - 10:45am	TYD 0130

0201	Stefania Scandizzo TuTh 11:00am - 12:15pm	Seats (Total: 375) TYD 0130

ECON201 **Principles of Macroeconomics**

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Recommended: ECON200. Credit only granted for: ECON201 or ECON205.

An introduction to how market economies behave at the aggregate level. The determination of national income/output and the problems of unemployment inflation, will be examined, along with monetary and fiscal policy.

0101	Alka Gandhi MWF 11:00am - 11:50am	Seats (Total: 375) TYD 0130
0201	Naveen Sarna TuTh 3:30pm - 4:45pm	Seats (Total: 375) TYD 0130

ECON230 **Applied Economic Statistics**

Prerequisite: Must have math eligibility of MATH113 or higher; or 1 course with a minimum grade of C- from (MATH107, MATH110); and minimum grade of C- in ECON200 and ECON201. Recommended: Students should already have basic familiarity with Microsoft Excel or similar spreadsheet software. Restriction: Must be in Economics Bachelor of Arts program.

Introductory course to develop understanding of statistical concepts used in applied economics. Students will acquire skills needed to calculate and interpret statistical concepts, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Students will apply these concepts to data using both handheld calculators and spreadsheets(Excel), and students will be introduced to an econometric software package such as SPSS or SAS or R.

0101	Pierre De Leo MW 2:00pm - 3:15pm	Seats (Total: 38) TYD 0101

ECON300 **Methods and Tools for Economic Analysis**

Prerequisite: 1 course with a minimum grade of C- from (ECON200, ECON201); and minimum grade of C- in MATH140. Restriction: Must be in Economics Bachelor of Science program; and must not have completed MATH241.

Economic application of mathematical tools and concepts necessary for intermediate and advanced coursework in economics. Topics include: multivariable calculus, constrained optimization, foundational coverage of probability theory, and exponential/logarithmic functions.

0101	Chenyu Yang MW 2:00pm - 3:15pm	Seats (Total: 50) TYD 1102

ECON305 **Intermediate Macroeconomic Theory and Policy**

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140). Credit only granted for: ECON305 or ECON325.

Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

0101	Martina Copelman TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 45) TYD 0117 KEY 0126	Discussion
0102	Martina Copelman TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 45) TYD 0117 KEY 0126	Discussion
0201	Martina Copelman TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 45) TYD 0117 KEY 0126	Discussion
0202	Martina Copelman TuTh 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 45) TYD 0117 KEY 0126	Discussion

ECON306 **Intermediate Microeconomic Theory & Policy**

Prerequisite: 1 course with a minimum grade of C- from (ECON200, AREC250); and minimum grade of C- in ECON201; and 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140). Credit only granted for: ECON306, ECON326, AREC489M, or AREC326.

Analysis of the theories of consumer behavior, producer behavior, different market structures, and various sources of inefficient outcomes. Analysis of microeconomic policies designed to improve market outcomes.

0101	Aaron Finkle MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 70) ESJ 1224 TYD 0117	Discussion
0102	Aaron Finkle MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 70) ESJ 1224 TYD 0117	Discussion
0201	Aaron Finkle MW 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 70) ESJ 1224 TYD 0117	Discussion

0202	Aaron Finkle	Seats (Total: 70)	
	MW 3:30pm - 4:45pm F 12:00pm - 12:50pm	ESJ 1224 TYD 0117	Discussion

ECON310 **European Economic History**

Prerequisite: ECON201 and ECON200.

The evolution of the capitalist system from its medieval origins to the present. Emphasis on dynamic forces of cumulative change in capitalism, including capital accumulation, technology, expansion of markets, the corporate form of private property in the means of production, and the relation of capitalism to war and revolution.

Contact department for information to register for this course.

ECON311 **American Economic History Before the Civil War**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Economic concepts are used to analyze various aspects of the founding and early history of the U.S., including the British settlement of the North American colonies, the economics of the American Revolutionary war, the writing of the Constitution, the development of financial markets, policies on public lands and the spread of western agriculture, slavery, banking, and early industrialization.

0101	John Wallis	Seats (Total: 90)
	TuTh 11:00am - 12:15pm	TYD 0117

ECON312 **American Economic History After the Civil War**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Topics include: the economics of the Civil War, the performance of southern agriculture in the late 19th century, the rise of large corporations, industrialization, the development of financial markets, the creation of the Federal Reserve Board, the economics of the Great Depression and the New Deal, the economic impact of World War II, and the rise of the modern service economy in the late 20th century. Utilizes basic economic theories to understand these episodes as well as the progress of the U.S. economy over this period.

0101	Alka Gandhi	Seats (Total: 30)
	MWF 10:00am - 10:50am	TYD 2106

ECON314 **Economic History, Development and Policy**

Prerequisite: ECON200 and ECON201.

Study abroad in the economic history, institutional development, and recent economic policy problems of selected areas.

Contact department for information to register for this course.

ECON315 **Economic Development of Underdeveloped Areas**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON315 or ECON416.

Analysis of the economic and social characteristics of underdeveloped areas. Recent theories of economic development, obstacles to development, policies and planning for development.

Contact department for information to register for this course.

ECON317 **Global Economic Policies**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Analysis of policy options and debates on fostering economic growth and development in a global economy where national boundaries are no longer relevant. Topics covered will include real loanable funds markets in both local and international contexts during normal conditions and during financial crises, the design of trade and industrial policies, and the role of the World Bank, IMF, WTO, and other international agencies as well as regional and bilateral trade agreements. Emerging economies will be emphasized.

0101	Naveen Sarna TuTh 12:30pm - 1:45pm	Seats (Total: 38) TYD 0111
0201	Naveen Sarna TuTh 2:00pm - 3:15pm	Seats (Total: 38) TYD 0111

ECON321 **Economic Statistics**

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program.

Introduction to the use of statistics in economics. Topics include: Probability, random variables and their distributions, sampling theory, estimation, hypothesis testing, analysis of variance, regression analysis and correlation.

0101	Alka Gandhi MWF 1:00pm - 1:50pm	Seats (Total: 60) TYD 0102

ECON325 **Intermediate Macroeconomic Analysis**

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON305 or ECON325.

Analysis of macroeconomic behavior and policy with emphasis on theoretical rigor. Topics include the determinants of economic growth, unemployment, inflation, and international economic flows.

0101	L Stevens TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 30) TYD 0102 TYD 0101	Discussion
0102	L Stevens TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 30) TYD 0102 TYD 2109	Discussion

ECON326 **Intermediate Microeconomic Analysis**

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON306, ECON326, or AREC326.

Analysis of economic decision-making by individuals and firms, the resulting market outcomes, and applications to real-world problems. Emphasis on analytical logic and theoretical rigor. Topics covered include consumer preferences and utility maximization, perfect competition and market power, uncertainty and risk, externalities, and asymmetric information.

0101	Melissa Kearney TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 30) TYD 0102 TYD 2106	Discussion
0102	Melissa Kearney TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 30) TYD 0102 TYD 2106	Discussion

ECON330 **Money and Banking**

Prerequisite: Minimum grade of C- in ECON200 and ECON201.

The structure of financial institutions and their role in the provision of money and near money. Analysis of the Federal Reserve System, the techniques of central banks, and the control of supply of financial assets in stabilization policy. Relationship of money and credit to economic activity and the price level.

0101	Thomas Drechsel TuTh 9:30am - 10:45am	Seats (Total: 275) ARC 0204	

ECON340 **International Economics**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON340 or ECON441.

Introduces economic models of international trade and finance. Analyzes policies designed to promote and restrict international trade and to manage exchange rates and impact international capital flows.

Contact department for information to register for this course.

ECON354 **Using Big Data to Solve Economic and Social Problems**

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and 1 course with a minimum grade of C- from (STAT100, ECON230, BMGT230, ECON321, STAT400, or other equivalent course). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

Shows how "big data" can be used to understand and address some of the most important social and economic problems of our time. The course will give students an introduction to frontier research and policy applications in economics and social science in a less-technical manner. Topics include equality of opportunity, education, racial disparities, innovation and entrepreneurship, health care, climate change, criminal justice, and tax policy. In the context of these topics, the course will also provide an introduction to basic methods in data science, including regression, causal inference, and machine learning.

Students will need a laptop during discussion sections. If needed, students can borrow laptops through the university libraries. Click Here here .

0101	Erin Moody TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 20) TYD 2102 TYD 2109	 Discussion
0102	Erin Moody TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 20) TYD 2102 TYD 2109	 Discussion

ECON358E **Special Topics in Study Abroad III; Environmental Economics**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358T **Special Topics in Study Abroad III; Behavior and Incentives in Economics: The Case of Soccer**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON375 **Economics of Poverty and Discrimination**

Prerequisite: Minimum grade of C- in ECON200 and ECON201.

Examination of various issues, including: the causes of persistent poverty over time for some groups within society; the relationship of poverty to technological change, to economic growth, and to education and training; economic results of discrimination; proposed remedies for poverty and discrimination.

0101	Sergio Urzua MW 9:30am - 10:45am	Seats (Total: 30) TYD 2111	

ECON386 **Experiential Learning**

(Perm req)

Prerequisite: ECON201 and ECON200. Restriction: Permission of BSOS-Economics department; and must be in a major within the BSOS-Economics department; and minimum cumulative GPA of 2.5; and junior standing or higher.

See Department Advising Office for course eligibility, course requirements, and application information.

Student and internship eligibility requirements, along with the ECON386 application, can be found at: http://ter.ps/ECON386.

Contact department for information to register for this course.

ECON387 **Career Preparation for Economics Majors**

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science) ; and must have earned a minimum of 30 credits.

Increase student knowledge of career paths, job search tools, and strategies for successfully obtaining a job with a BA or BS in economics. Students will engage in a range of different activities which build their understanding of job opportunities in economics and hone their abilities to find positions they want. Students will reflect on specific skills employers seek from economics graduates and incorporate that knowledge in their own individual job search and career plan.

0101	Stefania Scandizzo **Meets January 24, 2024 - March 13, 2024** F 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) TYD 1108 ONLINE
0201	Stefania Scandizzo **Meets March 14, 2024 - May 9, 2024** F 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) TYD 1108 ONLINE
0301	Ronda Ansted **Meets March 14, 2024 - May 9, 2024** W 2:00pm - 3:50pm Class time/details on ELMs	Seats (Total: 20) TYD 1132 ONLINE

ECON397 **Honors Thesis**

(Perm req)

Prerequisite: ECON396. Restriction: Must be a candidate for honors in economics.

General supervision will be provided through assembled meetings with the professor in charge of the course.

0101	Nolan Pope	Seats (Total: 15)
	MW 2:00pm - 3:15pm	TYD 1108

ECON398E **Topics in Economics; Environmental Economics**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Credit granted for only one of the following: ECON381,ECON398E, or ECON481.

Contact department for information to register for this course.

ECON398H **Topics in Economics; UK Economy & Financial Systems**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398K **Topics in Economics; Competitive Market Structures**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Prerequisite: ECON200.

Contact department for information to register for this course.

ECON398L **Topics in Economics; The British Economy and Financial System**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398M **Topics in Economics; Economics of Employment**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Prerequisites: ECON200 and ECON201.

Contact department for information to register for this course.

ECON398Z **Topics in Economics; Business Economics**

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON399 **Independent Study in Economics**

(Perm req)

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Permission of instructor must be arranged in advance. Open only to students who have previously earned 6 or more credits in upper division economics courses.

Contact department for information to register for this course.

ECON399M **Independent Study in Economics; Economy and Society**

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON407 **Advanced Macroeconomics**

Prerequisite: Minimum grade of C- in ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

An in-depth analysis of current issues in macroeconomic theory and policy. Topics covered include: 1. alternative perspectives on macroeconomics including monetarism, new classical equilibrium models, rational expectations, and real business cycle models; 2. long term growth, the slowdown in productivity growth, and concerns about U.S. competitiveness; 3. the effectiveness of macroeconomic policy in an open economy; 4. the effects of finance on the real sector.

0101	Martina Copelman TuTh 11:00am - 12:15pm	Seats (Total: 38) TYD 1132

ECON414 **Game Theory**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: CMSC474, ECON414, GVPT399A or GVPT390.

Studies the competitive and cooperative behavior that results when several parties find that their individual outcomes are jointly determined. Students will learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

0101	Peter Coughlin MWF 12:00pm - 12:50pm	Seats (Total: 40) TYD 1118
0201	Peter Coughlin MWF 1:00pm - 1:50pm	Seats (Total: 40) TYD 1118

ECON417 **Estimating Policy and Program Impact**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326) and 1 course with a minimum grade of C- from (ECON424, ECON422). Restriction: Permission of BSOS-Economics department; Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

Governments, businesses, non-profits, funders, and other organizations must allocate scarce resources between competing uses. Understanding the causal effect of policies, programs or investments on key outcomes can guide the choices of these decision-makers. Correlations between policies and outcomes or changes in outcomes after new policies are adopted are rarely sufficient for estimating the causal effect, however. This course focuses on econometric strategies for obtaining unbiased causal estimates, including experimental methods, instrumental variables, regression discontinuity, and differences-in-differences. There will be an emphasis on using Stata and on interpreting the results of econometric analysis

0101	Jessica Goldberg MW 3:30pm - 4:45pm	Seats (Total: 38) TYD 2106

ECON422 **Econometrics**

Prerequisite: 1 course with a minimum grade of C- from (ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON422, ECON424, or AREC422.

Emphasizes the interaction between economic problems and the assumptions employed in statistical theory. Formulation, estimation, and testing of economic models, including single variable and multiple variable regression techniques, theory of identification, and issues relating to inference.

0101	Maureen Cropper MW 2:00pm - 3:15pm	Seats (Total: 55) TYD 1101

ECON424 **Applied Econometrics**

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON422, ECON424 or AREC422.

Provide the knowledge and skills necessary to accomplish and utilize basic applied econometric analysis utilized by many business service providers, government agencies, and nonprofits engaged in policy analysis. Topics include simple and multiple regressions using cross section, time series, and panel data, issues of heteroskedasticity, serial correlation, and multicollinearity, models with binary dependent variable, and program evaluation. Course emphasizes application of knowledge using software packages but still covers essential theoretical background.

0101	Hossein Abbasi TuTh 11:00am - 12:15pm	Seats (Total: 47) TYD 2106

0201	Hossein Abbasi TuTh 12:30pm - 1:45pm	Seats (Total: 47) TYD 2106

ECON427 **Experimental Economics**

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

An introduction to the methodology of experimental economics and its application to issues such as decision-making under uncertainty, auctions, and public goods. Also an introduction to behavioral economics as a relatively new area of economic research.

0101	Emel Filiz Ozbay Tu 9:30am - 12:15pm	Seats (Total: 30) TYD 1114

ECON433 **Economics of Big Data**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT401). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

The importance of big data in the global economy is rising. Students will explore the definition and characteristics of big data, the impact of big data on individuals, use of big data by firms, entrepreneurs and non-profits, as well as how big data reshapes various public policies.

0101	Ginger Jin MW 11:00am - 12:15pm	Seats (Total: 48) TYD 2106

ECON441 **Theory of International Economics**

Prerequisite: Minimum grade of C- in ECON326 and ECON325. Restriction: Must be in a major within the BSOS-Economics department; and must not have completed ECON340, ECON442, or ECON443. Credit only granted for: ECON340, ECON441, ECON442, or ECON443.

Theoretical treatment of international trade and international finance. Includes Ricardian and Heckscher-Ohlin theories of comparative advantage, analysis of tariffs and other trade barriers, international factor mobility, balance of payments adjustments, exchange rate determination, and fiscal and monetary policy in an open economy.

Contact department for information to register for this course.

ECON442 **Globalization and Capital Markets**

Prerequisite: Minimum grade of C- in ECON326 and ECON325; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON442.

Uses models of open-economy macroeconomics to explain the causes and consequences of international capital flows. Analysis is made of private consumption, investment, the government sector, current accounts, the labor market, and the money and foreign exchange markets in small open economies. This framework is then used to study examples of how speculative attacks on currencies, sudden reversals of capital inflows, and the effects of the lack of credibility of economic policy affect economic development.

0101	Sebnem Kalemli-Ozcan	Seats (Total: 40)
	MW 10:00am - 11:15am	TYD 2109

ECON443 **International Trade and Trade Policy in the New Global Economy**

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program; and must not have completed ECON441. Credit only granted for: ECON441 or ECON443.

Examines the economics of international economic integration, including the theory of customs unions and free trade areas, the role of GATT and the WTO, changes in individual countries' foreign trade policies during the new era of globalization, the special role of multinational firms in world trade, and recent controversies about the benefits and costs of globalized trade.

0101	Sebastian Galiani	Seats (Total: 38)
	MW 2:00pm - 3:15pm	TYD 2109

ECON456 **Law and Economics**

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Relationship of the exchange process to the system of institutions and rules that society develops to carry out economic transactions. Topics covered include: Property rights; torts, negligence, and liability; contracts and exchanges; criminal control and enforcement; equity and efficiency issues .

0101	Aaron Finkle	Seats (Total: 80)
	MW 11:00am - 12:15pm	TYD 0117

ECON458Q **Special Topics in Study Abroad IV; State and Economy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON460 **Industrial Organization**

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Examines different theoretical models of firm behavior in markets with varying amounts of market power. Relates theory to specific industries and examines how market structure evolves over time.

Contact department for information to register for this course.

ECON465 Health Economics

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Analyze markets for health care and related products by understanding the incentives and constraints for various participants, including individuals, family units, doctors, pharmaceutical companies, hospitals, and insurance providers. Analysis will combine both theoretical models and empirical tools.

0101	Sebastian Galiani	Seats (Total: 38)
	TuTh 2:00pm - 3:15pm	TYD 2102

ECON470 Labor Economics: Theory and Evidence

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, STAT400, ECON321). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: ECON470 or ECON471.

Analysis of labor markets in theory and the real world. Topics include labor supply, labor demand, human capital, performance incentives, unemployment, discrimination, and immigration. Students will develop an understanding of how formal economic research is used to analyze U.S. labor markets and how research influences policy debates.

0101	Ethan Kaplan	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TYD 2106

ECON481 Environmental Economics

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: AREC481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Roberton Williams	Seats (Total: 80)
	TuTh 2:00pm - 3:15pm	SYM 0200

ECON486 Energy and Environmental Economics

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC456. Credit only granted for: AREC456 or ECON486.

Economic theory and empirical methods are used to study problems of energy, the environment, and the economy. It examines the extraction, production, and use of energy and market institutions and regulatory approaches used to correct market failures. Topics covered include: oil and natural gas markets, management and design of electricity markets, renewable energy, non-market valuation , climate change, and transportation policies.

To review the ECON course list to determine how this course will count towards your major, click here.

0101	Joshua Linn	Seats (Total: 80)	
	TuTh 12:30pm - 1:45pm	ATL 1113	

ECON499 **Independent Research in Economics**

(Perm req)

Directed research under the supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON602 **Macroeconomic Analysis II**

(Perm req)

Prerequisite: ECON601; or permission of BSOS-Economics department.

Further issues regarding macroeconomic topics. First half emphasis will be placed on dynamic macroeconomic theory as pertaining to monetary issues, policy ineffectiveness and effectiveness. The second half of the course will focus on theories of investment and growth.

0101	John Haltiwanger, Sebnem Kalemli-Ozcan	Seats (Total: 40)	
	MW 11:30am - 12:45pm	TYD 2109	
	M 5:00pm - 6:45pm	TYD 2106	Discussion

ECON604 **Microeconomic Analysis II**

(Perm req)

Prerequisite: ECON603. Restriction: Permission of BSOS-Economics department.

Analysis of markets and market equilibria; the Arrow-Debreu model of general equilibrium, the two-sector model, welfare theorems, externalities, public goods, markets with incomplete and asymmetric information.

0101	Daniel Vincent, Erkut Ozbay	Seats (Total: 45)	
	TuTh 2:00pm - 3:15pm	TYD 2109	
	Tu 5:15pm - 6:45pm	TYD 2106	Discussion

ECON613 **Origins and Development of Capitalism**

Institutions and technology shaping pre-capitalist economies: Archaic, Greek and Roman, Feudal, and Mercantile. Rise of the market system, national economies, and capitalism. The nature of industrial society. Imperialism.

0101	John Wallis	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	LEF 1221

ECON615 **Development Economics I**

Prerequisite: ECON603; or permission of BSOS-Economics department.

Explore both the causes and consequences in development economics from a historical and scientific approach. Presents theoretical models and applied work that test alternative hypotheses. Explore models of economic growth and institutions, with emphasis on property rights and political regimes as causal factors affecting development. Discuss empirical methods widely used in the field and important related topics including poverty, inequality, education and health.

0101	Sebastian Galiani	Seats (Total: 15)
	MW 10:30am - 11:45am	TYD 1114

ECON624 **Econometrics II**

(Perm req)

Prerequisite: ECON623; or permission of BSOS-Economics department.

A continuation of ECON623. Topics include: Nonlinear models and nonlinear estimation methods (generalized method of moments and maximum likelihood estimation), panel data models, univariate dynamic models, multivariate dynamic models including simultaneous equation models, and non-parametric/semiparametric estimation methods. The course will also provide instructions on the use of a major statistical package such as Stata or TSP.

0101	Ingmar Prucha, John Chao	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	TYD 2111	
	Th 5:30pm - 7:15pm	TYD 2111	Discussion

ECON637 **Decision Theory**

Prerequisite: ECON603 and ECON604. Restriction: Must be in the Economics program; or must have completed ECON603 and ECON604 with a letter grade of B+ or better. Credit only granted for: ECON698B or ECON637. Formerly: ECON698B.

Decision making is a process in which we select a course of action among available options. This course will explore the various behavioral biases observed in decision making processes by adjusting our normative theories to capture these biases.

0101	Yusuf Masatlioglu	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TYD 1108

ECON641 **Microeconomic Analysis**

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department. Credit only granted for: ECON641 or ECON506. Formerly: ECON506.

Microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy and health insurance are practical examples used to illustrate the abstract principles of microeconomics.

PR01	Aaron Finkle	Seats (Total: 23)	
	Meets February 26, 2024 - May 17, 2024		
	Tu 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON643 **Empirical Analysis I: Foundations of Empirical Research**

Credit only granted for: ECON643 or ECON521. Formerly: ECON521.

Fundamental aspects of data management and interpretation emphasizing sampling, descriptive statistics, index numbers and construction of aggregated variables. Students will learn probability theory, confidence intervals, hypothesis testing and regression analysis using the EXCEL spreadsheet program and STATA statistical software.

PR01	John Straub	Seats (Total: 23)	
	Meets February 26, 2024 - May 17, 2024		
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON644 **Empirical Analysis II: Introduction to Economic Models**

Prerequisite: ECON643.

An introduction to econometric methods with applications to public policy analysis. Primary focus on application and interpretation of multiple regression analysis.

PCE1	Hossein Abbasi	Seats (Total: 27)	
	M 6:30pm - 9:15pm	TYD 2102	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ECON645 **Empirical Analysis III: Econometric Modeling and Forecasting**

Prerequisite: ECON644. Credit only granted for: ECON645 or ECON523. Formerly: ECON523.

Study of empirical techniques that are particularly relevant to the analysis of microeconomic models. Emphasis is on advanced panel data methods, time series regressions, instrumental variables, limited dependent variables, and sample selection corrections.

PR01	Samuel Rowe	Seats (Total: 23)	
	Meets February 26, 2024 - May 17, 2024		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON662 **Theories of Industrial Organization**

Prerequisite: ECON604 and ECON603.

Dynamic models are important tools to understand intertemporal individual choices and industry evolution. The course discusses a number of issues estimating and solving dynamic models, complimenting and building on the methods and topics introduced in 625. The course also covers models of endogenous product choice, matching and market design. There will be two main sets of assignments, where students simulate data by solving models, estimate models based on simulated or real data and perform counterfactual analyses. The students will also be expected to submit a research proposal.

0101	Chenyu Yang	Seats (Total: 20)
	F 12:00pm - 2:50pm	LEF 1221

ECON670 Financial Economics

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

The course applies microeconomic theory and applied econometric techniques to the study of financial institutions and markets for financial assets. Students will learn how economists model and estimate the value of financial assets. The economic and empirical models are of interest to public policy makers and private wealth managers. Specific topics can include financial intermediation, the regulation of financial institutions, risk management, portfolio theory, the capital asset pricing model and the efficient markets hypothesis.

PCE1	Christian Krestel	Seats (Total: 27)
	Tu 6:30pm - 9:15pm	TYD 2109
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

ECON672 Program Analysis and Evaluation

Prerequisite: ECON641 and ECON645.

Students study the tools used to evaluate the effectiveness of public policies. All evaluations have weaknesses, and some have more weaknesses than others. You will learn how to distinguish high from low quality evaluations. We will discuss the basic economics and econometrics of program evaluation, focusing on the application of methods used for causal inference and cost-benefit analyses in public policy contexts. We will examine published evaluation research with the intent of showing how the research does or does not lead to clear conclusions regarding program performance.

PCE1	Ye Zhang	Seats (Total: 27)
	M 6:30pm - 9:15pm	TYD 2109
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

ECON673 **Information, Game Theory and Market Design**

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644.

A study of the strategic decision-making and the theory and practice of market design. Focus is on the design of organized market and incentives created by market rules. Topics include online auction markets, government auctions procurement auctions and matching markets. The analysis includes documenting the rules of real-world markets, game theoretic analysis, empirical analysis, and experimental work.

PCE1	David Ovadia	Seats (Total: 27)	
	Th 6:30pm - 9:15pm	TYD 2106	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		
PR01	Justin Grana	Seats (Total: 23)	
	Meets February 26, 2024 - May 17, 2024		
	Tu 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON676 **Economic Development**

Prerequisite: ECON641; and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Analysis of economic development. The course will focus on the consequences of poverty and poor institutions for the behavior and welfare of individuals, households, firms and the aggregate economy in developing countries. Theoretical models and empirical evidence will be used to understand the intended and unintended consequences of policies designed to enhance economic development.

PR01	Amanda Kerr	Seats (Total: 23)	
	Meets February 26, 2024 - May 17, 2024		
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON677 **International Trade and Applications**

Prerequisite: ECON641 and ECON644. Restriction: Must be in MS Applied Economics program; or with permission from the program director.

A mix of theory and empirical work. Students will analyze the causes and consequences of international trade. The course will cover a set of conceptual tools that are useful for understanding "globalization" and the usage of these tools to address interesting and important questions about how countries, firms, and workers respond to international trade.

PCE1	Steven Payson	Seats (Total: 27)	
	W 6:30pm - 9:15pm	TYD 2102	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ECON683 **International Macroeconomics and Finance**

Prerequisite: ECON641 and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Economic analysis of international macroeconomic issues and policy. Topics can include the study of exchange rates, balance of payments, international financial markets, international business cycles, contagion, and the roles played by international economic institutions.

PR01	Mahsa Agha Gholizadeh	Seats (Total: 23)	
	Meets February 26, 2024 - May 17, 2024		
	Th 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON684 **Applied Time Series Analysis and Forecasting**

Prerequisite: ECON642; and ECON645. Restriction: Must be in M.Prof.Studies: Applied Economics program.

This course builds on the brief introduction to time series econometrics offered in ECON 645. Students will learn the theory of stationary processes and how it applies to econometric techniques for estimation and forecasting based on time series data. The techniques will be applied in macroeconomic, financial and business applications.

PCE1	Mark Bognanni	Seats (Total: 27)	
	Th 6:30pm - 9:15pm	TYD 2109	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ECON702 **Advanced Macroeconomics II**

Prerequisite: ECON602 and ECON601.

Recent advances in the fast-growing subfield of behavioral macroeconomics, with applications to business cycles and monetary economics. We will discuss surveys and controlled laboratory experiments that test the full information rational expectations (FIRE) hypothesis, and characterize deviations from FIRE in individual beliefs and actions, and we will study models that relax both the FI and the RE assumptions in general equilibrium settings, to bridge the gap between individual biases and constraints on the one hand and aggregate consequences and policy implications on the other.

0101	L Stevens	Seats (Total: 15)
	Th 2:30pm - 5:00pm	TYD 1108

ECON704 **Advanced Microeconomics II**

Prerequisite: ECON604 and ECON603.

This is the second half of a two-semester sequence in Advanced Microeconomics, intended for second-year Ph.D. students. The course material varies from year-to-year, but currently it focuses on auction theory, matching theory, and the relationship between matching and auction theory. Other topics that are treated in some years include: sequential bargaining under incomplete information; and equilibrium refinements.

0101	Lawrence Ausubel	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	LEF 1201

ECON708 **Advanced Topics in Applied and Theoretical Microeconomics**

(Perm req)

Read, discuss, and analyze current topics in microeconomics, including public economics, environmental economics, labor economics, industrial economics, microeconomic theory, public choice and international trade. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	Sergio Urzua	Seats (Total: 40)
	MW 12:30pm - 1:45pm	TYD 2106

ECON709 **Advanced Topics in Applied and Theoretical Macroeconomics**

(Perm req)

Read, discuss, and analyze current topics in macroeconomics, including asset pricing models, models of economic growth, investment, and the labor market. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	John Shea	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	TYD 4103

ECON722 **Econometrics IV**

(Perm req)

Prerequisite: ECON624; or permission of BSOS-Economics department.

Orientated towards micro-econometric methods. Topics covered will be selected from the following: Further discussion of topics covered in ECON624, binary and multinomial response models, semiparametric and non-parametric estimation, machine learning algorithms, neural nets, and applications of ML to program evaluation and treatment effects methods. Introduces students to Python programming and Python ML toolkits Scikit and PyTorch. Structural econometrics, the identification problem, stratified and clustered samples, spatial and social network models, dynamic panel data models, weak instruments, non-parametric and semi-parametric estimation methods, boot strap and Jack Knife methods, pre-test estimators.

0101	Ingmar Prucha, Guido Kuersteiner	Seats (Total: 20)
	TuTh 5:00pm - 7:30pm	LEF 1221

ECON743 **Topics in International Finance**

Prerequisite: ECON602; or permission of BSOS-Economics department. Recommended: ECON741.

Puzzles in international finance; portfolio balance, current account dynamics, exchange rate behavior; capital market imperfections; balance of payments crises.

0101	Sebnem Kalemli-Ozcan	Seats (Total: 20)
	W 1:00pm - 3:30pm	TYD 1114

ECON747 **The Macreconomics of Imperfect Capital Markets**

Prerequisite: ECON602 and ECON601; or (ECON604 and ECON603); or permission of BSOS-Economics department. Restriction: Must be in one of the following programs (Economics (Master's); Economics (Doctoral)). Credit only granted for: ECON698K or ECON747. Formerly: ECON698K.

A field course designed for students who have completed introductory graduate course work in macroeconomics. The course is built around three main ideas. First, its objective is to understand the role of financial markets for fluctuations in the macroeconomy. More specifically, starting from a complete markets benchmark, we study canonical types of credit market frictions that give rise to macroeconomic effects. Second, the course aims to enhance the students' toolkit to carry out state-of-the-art research in macroeconomics in general. It provides plenty of practical exercise to take models (usually DSGE models with financial frictions) to the computer. Third, alongside the methodological content, we revisit empirical facts on the regularities of financial variables, the 2008-09 global financial crisis and the Covid-19 recession.

0101	Thomas Drechsel	Seats (Total: 15)
	Tu 2:30pm - 5:00pm	TYD 1108

ECON752 **Public Economics II**

Prerequisite: ECON751.

Students will study a set of issues related to the government's role in the economy, focusing on government redistribution and social insurance. Major topics covered include the optimal design of government redistribution programs; theoretical and empirical analyses of major U.S. government transfer programs; the optimal design of social insurance programs; and theoretical and empirical analyses of major U.S. social insurance programs.

0101	Melissa Kearney	Seats (Total: 20)
	MW 2:00pm - 3:15pm	LEF 1220

ECON756 **Empirical Political Economics**

An introduction to empirical political economy. Determinants of individual political behavior, the impact of political institutions on economic outcomes, and economic determinants of political institutions will all be analyzed. Modern applied econometric techniques will also be covered.

0101	Ethan Kaplan TuTh 12:30pm - 1:45pm	Seats (Total: 20) LEF 1221

ECON772 **Population Economics**

(Perm req)

Prerequisite: ECON603 and ECON604; and (ECON623 and ECON624) or ECON626; or permission of BSOS-Economics Department.

Explore topics in labor and public economics. Study the empirical evidence and the applied methodology used within labor and public economics. Discuss important topics in labor and public economics including immigration, education, discrimination, crime, and the role of family background. Provide instruction on how to perform empirical labor and public economic research by familiarizing students with available data sources, current research methodology, and practice with statistical packages such as Stata.

0101	Nolan Pope MW 3:30pm - 4:45pm	Seats (Total: 20) TYD 1108

ECON781 **Valuing Environmental Benefits**

Prerequisite: ECON603; and ECON623. Or students who have taken courses with comparable content may contact the department.

The theory and practice of valuing environmental benefits, including the health, recreation and aesthetic benefits associated with controlling air and water pollution, and the damages associated with climate change. Estimation of the benefits of energy efficiency improvements-including the benefits of fuel economy standards.

0101	Maureen Cropper MW 5:00pm - 6:15pm	Seats (Total: 20) TYD 1108

ECON799 **Master's Thesis Research**
Contact department for information to register for this course.

ECON808 **Workshop on Macroeconomics, International Macroeconomics and International Finance**

(Perm req)

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ECON graduate students only.

0101	Boragan Aruoba W 3:30pm - 6:00pm	Seats (Total: 40) TYD 4103

ECON828 **Workshop in Econometrics**

Current research in econometrics. Topics drawn from theoretical and applied econometrics. Special topics include: maximum likelihood and generalized method of moments estimation of linear and non-linear models, analysis of stationary and non-stationary time series, cross section time series estimation, spatial estimation mehtods, Bayesian methods, semi-and non-parametic methods, rational expectations models, numerical methods, and various applications.

0101	John Chao M 3:30pm - 6:00pm	Seats (Total: 20) TYD 4103

ECON848 **Workshop in International Trade, Institutional Economics and Political Economy**

(Perm req)

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ECON graduate students only.

0101	Peter Murrell M 3:30pm - 6:00pm	Seats (Total: 30) Location: TBA

ECON868 **Workshop in Industrial Organization, Microeconomic Theory and Behavioral and Experimental Economics**

(Perm req)

Workshops designed to provide a structured environment for our faculty and graduate students to meet regularly to discuss and present their research ideas.

ECON graduate students only.

0101	Yusuf Masatlioglu Tu 3:30pm - 6:00pm	Seats (Total: 40) TYD 4103

ECON878 **Workshop in Development, Labor and Public Economics**

(Perm req)

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ECON graduate students only.

0101	Jessica Goldberg Th 3:30pm - 6:00pm	Seats (Total: 40) TYD 4103

ECON898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

ECON899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

EDCP Education Counseling and Personnel Services Spring 2024

EDCP108I **College and Career Advancement: Concepts and Skills; Academic Transitions to Internships**

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with less than 105 cumulative credits. Recommended for students who have never had an internship and are actively searching for one. Students participating in this course will engage in the full experience of searching for an internship. Course registration is closed to graduating seniors."

0101	Marisha Addison **Meets January 24, 2024 - March 8, 2024** Class time/details on ELMs	Seats (Total: 40) ONLINE
0301	Caroline Bodnar **Meets January 24, 2024 - March 8, 2024** Class time/details on ELMs *This section is restricted to College of Arts & Humanities Students only.*	Seats (Total: 30) ONLINE
0401	Marisha Addison **Meets March 25, 2024 - May 10, 2024** Class time/details on ELMs	Seats (Total: 40) ONLINE
0501	Jeffrey Quinteros Ceron **Meets March 25, 2024 - May 10, 2024** Class time/details on ELMs	Seats (Total: 40) ONLINE
0601	Olivia Rosenburg **Meets January 24, 2024 - March 8, 2024** Class time/details on ELMs *This section is restricted to CMNS students only.*	Seats (Total: 30) ONLINE

0801	Veronica Perrigan, Elizaveta Solovey, Brianne Gridley **Meets January 24, 2024 - March 8, 2024** Class time/details on ELMs *This section is restricted to College of Engineering Students only.*	Seats (Total: 30) ONLINE

EDCP210 **Peer Counseling Skills and Mental Health Advocacy**

Restriction: Must not have completed EDCP310; and must not have completed PSYC433. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Introduction to core helping skills in peer counseling settings and three predominant theoretical approaches used in the counseling field (humanistic, psychodynamic, cognitive-behavioral). The course also explores mental health stigma and advocacy. Students will build an understanding of the practical application of underlying principles and theory in counseling and the helping professions, while exploring their own, and societal, biases, assumptions, and attitudes toward mental health.

0101	Bridget Moran, Romy Stancofski TuTh 2:00pm - 3:15pm	Seats (Total: 19) EDU 3233
0201	Laura Kelly MW 2:00pm - 3:15pm	Seats (Total: 19) JMZ 2125
0401	Isabella Stoto MW 10:00am - 11:15am	Seats (Total: 19) EDU 3236
0501	Brianna Ladd TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3217

EDCP230 **The Science and Practice of Happiness and Psychological Well-Being**

An introduction to theory and research on positive psychology, subjective well-being, and the psychology of happiness. This will include examination of hedonic and eudaimonic models of well-being and sociocultural understandings of happiness, together with how it relates to health, relationships, money, religion, work, and social media. Students will also explore common misconceptions and myths about happiness and well-being and will engage in a variety of activities designed to deepen their understanding of happiness in their own lives and broader societal trends related to well-being.

0101	Amber Pasha TuTh 9:00am - 10:15am	Seats (Total: 18) EDU 3233
0201	Stephanie Cerrato MW 2:00pm - 3:15pm	Seats (Total: 18) EDU 2101

0301	Hailey Fleece MW 12:30pm - 1:45pm	Seats (Total: 18) KNI 1206
0401	Daniel Moore MW 6:00pm - 7:15pm	Seats (Total: 18) JMZ 0205
0501	Manuel Teran Hernandez TuTh 1:00pm - 2:15pm	Seats (Total: 18) MTH B0431
0601	Rabia Brown MW 11:00am - 12:15pm	Seats (Total: 18) JMZ 1124

EDCP298 **Special Problems in Counseling and Personnel Services**

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP386 **Experiential Learning**

(Perm req)

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department; and sophomore standing or higher.

Special EDCP form required.

Contact department for information to register for this course.

EDCP489 **Field Experiences in Counseling and Personnel Services**

(Perm req)

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDCP498 **Special Problems in Counseling and Personnel Services**

(Perm req)

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP498B **Special Problems in Counseling and Personnel Services; From Africa to South America - The Afro-Brazilian Experience**

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP498T **Special Problems in Counseling and Personnel Services; Contextual Leadership-Teaching Assistant**

(Perm req)

Available only to major students who have formal plans for individual study of approved problems.

0101	Tori Shay, Selah Thom	Seats (Total: 30)
	Meets March 29, 2024 - May 4, 2024	
	M 5:00pm - 7:05pm	SQH 1101

EDCP612 **Multicultural Issues in Counseling and Personnel Services**

(Perm req)

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Socio-psychological, philosophical, clinical, and research topics related to the provision of counseling and personnel services, academic support, and career development for minority students on predominantly white college and university campuses. Implications of race and/or national origin on opportunities for personal, social, academic, and career development in educational settings.

0101	Richard Shin	Seats (Total: 15)
	W 4:15pm - 7:00pm	EDU 2101

EDCP614 **Counseling Skills: Introduction to Practicum**

Corequisite: EDCP616.

Development and utilization of counseling skills.

0101	Roger Worthington	Seats (Total: 16)	
	Tu 1:00pm - 3:45pm	EDU 2102	
	Tu 4:00pm - 5:30pm	JMZ 0118	Lab

EDCP615 **Counseling I: Appraisal**

(Perm req)

Corequisite: EDCP618. Restriction: Must be in a major within EDUC-Counseling, Higher Education and Special Education department.

Collection and interpretation of appraisal data, synthesis of data through case study procedures. Development of interview skills.

0101	Roger Worthington	Seats (Total: 10)
	Tu 1:00pm - 3:45pm	LEF 1171

EDCP621 **Practicum in School Counseling**

(Perm req)

Prerequisite: EDCP616. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP619D or EDCP621. Formerly: EDCP619D.

Sequence of supervised counseling experiences of increasing complexity.

0101	Ileana Gonzalez, Jessica McKechnie M 4:15pm - 7:00pm	Seats (Total: 12) EDU 2102
0201	Jessica McKechnie M 7:00pm - 9:45pm	Seats (Total: 12) SQH 1125

EDCP625 **Counseling the Chemically Dependent**

Restriction: Must be in the School Counseling program; or permission of instructor.

Chemical dependency and its effects on the individual's personal, social, and work functioning. Counseling procedures for persons with drug and alcohol problems.

0101	Sylvia Huntley W 4:15pm - 7:00pm	Seats (Total: 15) EDU 3236

EDCP633 **Diagnostic Appraisal of Children I**

Prerequisite: EDCP632.

Assessment of development, emotional and learning problems of children.

0101	Hedwig Teglasi Tu 9:45am - 12:30pm	Seats (Total: 10) JMZ 1123

EDCP636 **School Consultation II**

Prerequisite: EDCP635. Restriction: Must be in the School Psychology program; or permission of instructor.

Didactic practicum in consultation services in the school setting. Case consultation and organizational consultation in the schools. Practicum experience.

0101	Katie Burkhouse Tu 4:30pm - 7:15pm	Seats (Total: 4) Location: TBA

EDCP651 **Group Counseling in Schools**

(Perm req)

Prerequisite: EDCP616; and for school counseling and school psychology students only. Restriction: Permission of instructor.

Issues and techniques of group counseling in schools.

0101	Jorinna Tran	Seats (Total: 10)
	Tu 4:15pm - 7:00pm	EDU 2102

EDCP680 **Basic Didactic Practicum in Counseling Psychology**

Prerequisite: For Counseling Psychology majors only. Formerly: PSYC776.

In depth examination of counseling theories and techniques, and supervised experience in application of a range of counseling and therapy approaches.

0101	Delida Sanchez	Seats (Total: 8)
	Tu 12:00pm - 3:00pm	ARC 1127

EDCP686 **Counseling Psychology Didactic Practicum in Career Interventions**

Prerequisite: For Counseling Psychology majors only. Formerly: EDCP777.

In depth examination of theorectical approaches and issues in career interventions; supervised experience in career counseling and assessment.

0101	Taylor Morris	Seats (Total: 10)
	Th 3:00pm - 6:00pm	SQH 2113

EDCP691 **Research in Counseling Psychology II**

Prerequisite: For Counseling Psychology majors only. Cross-listed with PSYC691. Formerly: EDCP717.

Critical analysis of trends and issues in counseling psychology science.

0101	Dennis Kivlighan	Seats (Total: 10)
	W 2:00pm - 5:00pm	EDU 1224

EDCP738 **Practicum in Child Assessment**

Administration of complete test batteries to children; supervision of initial interviews; test administration and scoring; interpretation and synthesis of test battery and interview material; the psychological report; verbal interpretation of test results; and recommendations. Taken initially with EDCP 633; repeated with EDCP 634 in the subsequent semester.

Class meets in 1102M Seneca Building.

0101	Megan Vaganek	Seats (Total: 7)
	W 5:45pm - 8:45pm	Location: TBA

EDCP750 **Therapeutic Approaches with Children**

Restriction: Must be in Counseling and Personnel Services (Doctoral) program; or permission of instructor. Credit only granted for: EDCP789N or EDCP750. Formerly: EDCP789N.

Theoretical and empirical underpinnings of the therapeutic process with children.

0101	Meghan Green M 5:30pm - 8:30pm	Seats (Total: 10) JMZ 3122

EDCP776 **Social Justice in Student Affairs and Higher Education**

(Perm req)

Prerequisite: EDCP771 or EDCP741; or permission of instructor. Restriction: Limited to college student personnel students only.

An exploration of differences, biases, assumptions, limitations, and challenge with diversity in the context of higher education and student affairs. Focusing on issues of inequities with social identity group membership and the systems of power, privilege, and oppression in society.

0101	Christopher Travers Tu 4:30pm - 7:15pm	Seats (Total: 15) EDU 2101

EDCP788 **Advanced Practicum**

Individual supervision in one of the following areas: (a) individual counseling, (b) group counseling, (c) consultation, or (d) administration.

1101	Bridget Kelly Contact instructor or department for details.	Seats (Total: 2)
5001	John Zacker Contact instructor or department for details.	Seats (Total: 5)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 2)
7001	Julie Park Contact instructor or department for details.	Seats (Total: 1)
7301	Kimberly Griffin Contact instructor or department for details.	Seats (Total: 5)

EDCP788A **Advanced Practicum; Social Justice Practicum**

Individual supervision in one of the following areas: (a) individual counseling, (b) group counseling, (c) consultation, or (d) administration.

Restricted to Counseling Psychologe students only. This course is designed to introduce students to social justice theories with the goal of developing systemic/macro level intervention and consultation skills. This course will prepare students with the awareness, knowledge, and skills necessary to serve as social justice advocates in their various roles (e.g., counselor, researcher, and educator) as counseling psychologists.

0101	Jioni Lewis W 1:00pm - 4:00pm	Seats (Total: 10) WDS 1131

EDCP789R **Advanced Topics in Counseling and Personnel Services**

(Perm req)

0101	Michelle Espino Contact instructor or department for details.	Seats (Total: 5)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 1)

EDCP797 **Capstone Course: Program Planning**

Restriction: Must be in the School Counseling program. Credit only granted for: EDCP789T or EDCP797. Formerly: EDCP789T.

0101	Jorinna Tran Tu 7:00pm - 9:50pm	Seats (Total: 15) EDU 2102

EDCP798 **Special Problems in Counseling and Personnel Services**

(Perm req)

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Contact department for information to register for this course.

EDCP798L **Special Problems in Counseling and Personnel Services; Chicana/Latina Feminist Approaches to Educational Research**

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

0101	Michelle Espino W 4:30pm - 7:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 1215 ONLINE

EDCP799 **Master's Thesis Research**

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDCP870 **Professional Issues Seminar**

Credit only granted for: EDCP656 or EDCP870. Formerly: EDCP656.

Examination of issues that bear on professional issues such as ethics, inter-professional relationships and research.

0101	Paul Gold Th 4:15pm - 7:00pm	Seats (Total: 15) ONLINE	

EDCP879 **Internship in School Counseling**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Jessica McKechnie M 7:15pm - 10:00pm M 4:15pm - 7:00pm	Seats (Total: 15) EDU 2101 JMZ 1103	 Lab

EDCP888 **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP888A **Apprenticeship in Counseling and Personnel Services; College Student Personnel**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)
5101	Candace Moore Contact instructor or department for details.	Seats (Total: 1)
7001	Julie Park Contact instructor or department for details.	Seats (Total: 3)
7201	Michelle Espino Contact instructor or department for details.	Seats (Total: 10)

EDCP888C **Apprenticeship in Counseling and Personnel Services; School Psychology**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Colleen O'Neal W 1:00pm - 3:45pm	Seats (Total: 15) Location: TBA
0201	Hedwig Teglasi Tu 1:30pm - 4:30pm	Seats (Total: 15) WDS 1130
0401	Annie Goldthrite W 5:00pm - 8:00pm	Seats (Total: 15) KNI 1206
0501	Judith Kinney Class time/details on ELMs	Seats (Total: 10) ONLINE
3901	Cixin Wang Contact instructor or department for details.	Seats (Total: 5)

EDCP888G **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP889 **Internship in Counseling and Personnel Services; Internship in Counseling and Personnel Services**

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDCP889C **Internship in Counseling and Personnel Services**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

0101	Jioni Lewis Contact instructor or department for details.	Seats (Total: 10)

EDCP898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDCP899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDHD Education, Human Development Spring 2024

EDHD200 **Paradigms and Perspectives in Human Development**

Restriction: Must have 45 or fewer credits; or must be in the Human Development program or Human Development minor.

An introduction to the paradigms and perspectives that guide the study of human development across the lifespan in cognitive, social, physical and emotional domains. Topics of study include overlying principles, concepts, assumptions, theoretical frameworks, and research methods that influence ways in which development is conceptualized. The course is designed to provide insight into major questions of the day in human development and how these prevailing perspectives have evolved over time. This course will also help students understand how knowledge of theory and research is translated into practice in a variety of professional settings.

0101	Lucas Butler MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 40) ESJ 1202 ONLINE	Discussion
0102	Lucas Butler MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 40) ESJ 1202 ONLINE	Discussion
0201	Christina Edmonds TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 1121	

EDHD201 **Learning How to Learn**

Immerses students in the theoretical and empirical study of learning by engaging them in orchestrated experiences and activities drawn directly from the disciplinary research. Students achieve deep understanding of their own learning, as well as the means of enhancing that learning both in school and out-of-school contexts.

0101	Patricia Alexander MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) ESJ 2309 HBK 0123	Discussion
0102	Patricia Alexander MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 30) ESJ 2309 HBK 0123	Discussion

0201	Nancy Gans TuTh 8:00am - 9:15am	Seats (Total: 30) EDU 3315
0301	Nancy Gans TuTh 9:30am - 10:45am	Seats (Total: 30) EDU 3315

EDHD210 **Foundations of Early Childhood Education**

(Perm req)

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students explore historical and current research in early childhood education, primary models of curriculum and pedagogy in the field, and the relationship between critical aspects of young children's development and the creation of inclusive learning opportunities for all children, including children at risk. The concept of developmentally appropriate practice and its application across different developmental levels and early childhood classrooms will be introduced and connected with discussion in EDHD220 and EDSP211. Students examine issues in developing and implementing high quality early childhood education experiences for young children with and without disabilities, including the influence of family, culture, and community, the needs of children at risk (e.g., poverty, immigrant status, English Language Learners), and the role of assessment in early learning.

0101	Jennifer Smallwood-Holmes Th 1:00pm - 3:45pm	Seats (Total: 25) EDU 1315

EDHD220 **Exploring Early Childhood General and Special Education**

(Perm req)

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students who are considering a career in education will consider information about the teaching profession. Students reflect on their personal strengths, identify areas of growth, and examine their predisposition to work with young children with and without disabilities. They will discuss the nature of teaching, the moral and philosophic underpinnings that influenced their decision to enter into the teaching professions, as well as the roles and responsibilities of teachers and the characteristics and qualities for effective teachers (teaching styles and teacher's primary role in the classroom).

Students should allow an appropriate amount of travel time from the off-campus experience to your classes meeting on campus.

0101	Lisa Davis W 2:00pm - 4:00pm M 8:30am - 12:30pm	Seats (Total: 7) EDU 2119 Location: TBA	 Lab

0102	Lisa Davis W 2:00pm - 4:00pm Tu 8:30am - 12:30pm	Seats (Total: 6) EDU 2119 Location: TBA	Lab
0104	Lisa Davis W 2:00pm - 4:00pm Th 8:30am - 12:30pm	Seats (Total: 6) EDU 2119 Location: TBA	Lab
0105	Lisa Davis W 2:00pm - 4:00pm F 8:30am - 12:30pm	Seats (Total: 6) EDU 2119 Location: TBA	Lab

EDHD228 **Research Experiences in Human Development**

(Perm req)

Provides students with hands-on participation in faculty-supervised laboratory research activities in the Department of Human Development & Quantitative Methodology. Students will learn about the purpose of scientific research and engage in activities that advance their knowledge and skills with regard to its ethical practice.

Contact department for information to register for this course.

EDHD230 **Human Development and Societal Institutions**

Development of the individual in the context of relationships with the formal and informal institutions of society. An examination of various aspects of development from the broad perspective of the social sciences.

0101	Joshua Jaffe MW 9:30am - 10:45am	Seats (Total: 40) EDU 1107
0201	Joshua Jaffe MW 11:00am - 12:15pm	Seats (Total: 40) EDU 1107

EDHD306 **Research Methods in Human Development**

Addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context and will participate in experiential activities, such as conducting observations and collecting self-report data. Major themes: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development.

0101	Richard Prather MW 9:30am - 10:45am	Seats (Total: 40) EDU 1121

0201	Richard Prather MW 11:00am - 12:15pm	Seats (Total: 40) EDU 1121
0301	Jinglei Ren TuTh 2:00pm - 3:15pm	Seats (Total: 40) ARC 1101

EDHD310 **Your Brain on Education: The Neuroscience of Learning and Development**

Prerequisite: PSYC100.

Investigation linking research in the brain science of learning and development, including the neural basis of academic skills, to achievement, disability, and broader applications to classroom learning. This course will focus on areas of education including language (spoken and written), conceptual change, numerical/quantitative processing, and social cognition as well as burgeoning areas of neuroscientific research in general cognitive processes such as attention, memory, and executive processing. These topics will be discussed with respect to typical and atypical development with some focus on developmental disabilities including autism, specific language impairment, reading and math impairment, and attention deficit disorders among others. This course will focus on both the theoretical perspectives and pragmatic issues of how evidence regarding brain development can or may be translated into useful or misleading information for educators, professionals, and parents/guardians of our children.

0101	Donald Bolger TuTh 11:00am - 12:15pm	Seats (Total: 50) HJP 2242

EDHD319 **Selected Topics in Human Development**

Selected topics in human development in relation to contemporary culture.

Contact department for information to register for this course.

EDHD320 **Human Development Through the Life Span**

Central concepts related to parameters of human development, individual and social, which arise throughout the life span. Continuity and change within the developing individual.

0101	Rachel Ghosh W 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE
0201	Rachel Ghosh W 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE
0301	Jennie Lee-Kim Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 38) EDU 2119 ONLINE

0401	Christina Edmonds TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 1121
0501	Elise Kaufman Tu 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE
0601	Min Wang M 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE

EDHD386 **Experiential Learning**

(Perm req)

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department; and junior standing or higher.

Contact department for information to register for this course.

EDHD390 **Career Paths and Internship Preparation in Human Development**

Restriction: Must be in the Human Development major.

Prepares degree candidates in Human Development for career paths in the field including initial job seeking skills, knowledge necessary for entry into various professions and preparation for the program internship requirement

0101	Olga Walker W 2:00pm - 2:50pm Class time/details on ELMs *Must be in the Human Development Major.*	Seats (Total: 15) EDU 2102 ONLINE
0201	Olga Walker W 3:00pm - 3:50pm Class time/details on ELMs *Restricted to Human Development majors only.*	Seats (Total: 15) EDU 2102 ONLINE

EDHD402 **Social Development**

Recommended: EDHD411.

Social Development. Critical concepts and ideas of the study of child and adolescent social development. Focus on changes in interpersonal relationships, emotions, achievement-related behavior and competence, and functioning within the broader social context.

0101	Olga Walker MW 11:00am - 12:15pm	Seats (Total: 40) TWS 0221

EDHD411 **Child Growth and Development**

Theoretical approaches to and empirical studies of physical, psychological and social development from conception to puberty. Implications for home, school and community.

0201	Suzanne Muir MW 11:00am - 12:15pm	Seats (Total: 40) TWS 0207
0301	Gillian Grose MW 9:30am - 10:45am	Seats (Total: 40) TWS 0201

EDHD412 **Infant Development**

Infant development across domains, including perceptual, motor, cognitive, language, social and emotional functioning from pre-natal through third year of life.

0201	Enda Tan Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE

EDHD413 **Adolescent Development**

Adolescent development, including special problems encountered in contemporary culture. Observational component and individual case study.

0101	Katherine Luken Raz MW 9:30am - 10:45am	Seats (Total: 40) EDU 2119
0201	Geetha Ramani TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 1107

EDHD415 **Promoting the Social-Emotional Competence of Young Children in Inclusive Classrooms**

(Perm req)

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP423, EDSP424, and EDHD431. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and junior standing or higher; and minimum cumulative GPA of 2.75.

Teachers must have knowledge and skill regarding how to appropriately manage the classroom so that all children, those with and without disabilities, will be able to learn from their school experiences. Classroom management extends beyond responding to student misbehavior to include a comprehensive approach to addressing the social/emotional competence of typically and atypically developing children. The goal of this course is to prepare early childhood teachers who are able to sensitively, responsively, and effectively manage a classroom of young students who are typically developing and those who have disabilities. Includes Field Experience.

0101	D'Lisa Worthy	Seats (Total: 25)
	Tu 4:15pm - 6:15pm Contact instructor or department for details.	EDU 3233

EDHD421 **Peer Relations**

Recommended: EDHD411.

Historical and theoretical underpinnings to contemporary research on peer interactions, relationships, and groups. Focus on (1) inter-dependencies of individual characteristics, social behaviors, social relationships; (2) relations between familial factors and extra-familial peer interactions and relationships; (3) normal and abnormal peer relationships; and (4) cross cultural universals and differences.

0101	Olga Walker	Seats (Total: 38)
	MW 12:30pm - 1:45pm	EDU 3315
	Restricted to Human Development majors and minors.	

EDHD424 **Culture, School & Community: Contexts for Learning (PreK-3rd)**

(Perm req)

Prerequisite: EDHD425 and EDHD314; and (EDHD419 or EDSP420). Corequisite: EDSP315, EDHD431, EDHD415, and EDSP423. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and junior standing or higher; and minimum cumulative GPA of 2.75.

Explores the development of the young child (with and without disabilities, as well as those at environmental risk) in the context of the family and community, with emphasis on the impact of state, federal and school system policy on the child's world. Course will consider issues within the family, and the wider socio-cultural ecology that relate to the child's ability to develop and learn. In addition, students will develop strategies for respectful and culturally responses approaches to actively engage families in their children's development and learning. Includes Field Experience.

0101	Amanda Schwartz	Seats (Total: 25)
	W 10:00am - 12:00pm Contact instructor or department for details.	LEF 1201

EDHD425 **Language Development and Reading Acquisition**

This course focuses on young children's language development and the relationship between language and reading acquisition. Students will learn: concepts central to language development; language achievements at different ages; concepts of emergent literacy; models of reading acquisition and skilled reading.

0201	Min Wang	Seats (Total: 40)
	M 11:00am - 12:15pm Class time/details on ELMs	EDU 2119 ONLINE

EDHD426 **Cognitive and Motivational Literacy Content**

(Perm req)

Students preparing for secondary teaching will learn about the cognitive and motivational aspects of literacy and learning from text for the content areas of literature, science, history and mathematics. Different evidenced-based literacy approaches appropriate for content learning are presented. Characteristics of learning environments that enable students to engage productively with diverse texts, disciplinary tasks, and technological resources in content areas are identified.

Restricted to major codes 0831L, 0831P, 0833L, 0833P, 0843L, 0834P, 0840L, 0840P, 0841L, 0841P, 0842L, 0842P, 0843L, 0843P, 0844L, 0844P.

0101	Daphne Williams	Seats (Total: 40)
	Tu 7:00pm - 9:45pm	ONLINE

EDHD431 **Child Development and Learning, Three to Eight Years**

(Perm req)

Prerequisite: Minimum grade of C- in EDHD314 and EDHD425; and 1 course with a minimum grade of C- from (EDHD419, EDSP420). Corequisite: EDSP423 and EDSP315; and TRACK I: Must be concurrently enrolled in EDSP430, EDSP433; or TRACK 2: Must be concurrently enrolled in EDHD415, EDHD424.

Provides a basic understanding of child development theory and research, as well as specific knowledge about the development of children during the early and middle childhood "stages," specifically from ages 3 years to 8 years. A major emphasis will be the application of theory and research from the field of educational psychology to an understanding of how young children learn and achieve academically. Because the course will address the developmental and academic functioning of children with and without disabilities, a particular focus will be on individualization.

0101	Olga Walker, Saba Ahmed	Seats (Total: 35)
	Tu 1:00pm - 3:45pm	SQH 1121

EDHD432 **Internship in EC/ECSE**

Prerequisite: EDHD323, EDHD322, EDSP417, EDHD441, EDHD442, EDHD443, EDHD444, and EDSP321. Corequisite: EDHD437. Restriction: Must be in Early Childhood and Early Childhood Special Education program; and senior standing or higher.

Interns spend five days per week in the classroom/home-based setting (under the mentorship of a certified teacher) where they gradually assume full responsibility for the planning, delivery and assessment of instruction or an intervention. Track I students will have an Infant/Toddler placement with special educator, Track II students will be in a Pre-K/K or Grade 1,2,3 classroom with general or special educator (must be opposite grade level and mentor from Phase I/fall of the senior year).

Students must pay a $350.00 lab fee.

0101	Stephanie Varner	Seats (Total: 35)
	Contact instructor or department for details.	
	See instructor for details.	

EDHD436 **Cognition and Motivation in Content Area Literacy for Middle-School Students**

Cognitive and motivational processes of literacy and learning from texts across subjects. Structured approaches to using reading, writing, and speaking for content learning based on approaches to knowledge, motivation, and strategies. Classroom contexts that enable middle-school students to engage with diverse texts and Internet resources are provided

0101	Christopher Ellis	Seats (Total: 30)
	Th 4:15pm - 7:00pm	EDU 1107
	Restricted to 0804L and 0804P major codes.	

EDHD437 **EC/ECSE Teachers as Researchers and Reflective Practitioners**

(Perm req)

Prerequisite: Minimum grade of C- in EDHD322, EDHD323, EDSP321, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444. Corequisite: EDHD432.

Students use action research to improve instructional delivery or familial interactions in an effort to enhance the overall educational experiences/outcomes of children in classrooms or home-based contexts. Students will design and implement an action research project in an effort to meet a goal articulated in an applicable Individualized Education Plan (IEP) or Individualized Family Service Plan (IFSP) or School Improvement Plan (SIP) as the basis of their project.

0101	Stephanie Varner	Seats (Total: 35)
	Th 4:15pm - 7:00pm	EDU 2119

EDHD460 **Educational Psychology**

Prerequisite: PSYC100; or permission of EDUC-Human Development and Quantitative Methodology department.

Application of psychology to learning processes and theories. Individual differences, measurement, motivation, emotions, intelligence, attitudes, problem solving, thinking and communicating in educational settings.

0101	Alina Maki MW 2:00pm - 3:15pm	Seats (Total: 40) EDU 1107
0201	Victoria Alexander Terry MW 9:30am - 10:45am	Seats (Total: 40) SQH 1101

EDHD488A **Special Topics in Human Development; Social Agency, Equality, and Development**

Special and intensive treatment of current topics and issues in human development.

0101	Melanie Killen Tu 1:00pm - 3:45pm	Seats (Total: 22) EDU 2101

EDHD489 **Field Experiences in Human Development**

(Perm req)

Planned field experience (internship or research-based activities) related to Human Development. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHD498 **Special Research Problems in Human Development**

(Perm req)

Exploration of current research problems in the study of human development. Available only to students who have definite plans for individual study of approved research problems. Credit according to extent of work.

Contact department for information to register for this course.

EDHD629 **Developmental Science Seminar and Colloquium**

A seminar and colloquium series featuring speakers from the department, the college, the university, and other universities and institutions from across the world that aims to cover issues pertaining to contemporary theory and research in human development, child development, and developmental science. The seminar format is a weekly colloquia series, along with discussion sessions related to a range of developmental science topics.

0101	Melanie Killen, Richard Prather W 12:30pm - 1:45pm	Seats (Total: 25) EDU 1107

EDHD635 **Adolescents at Risk**

Recommended: EDHD600. Credit only granted for: EDHD635 or EDHD779L. Formerly: EDHD779L.

Study of current research on risky behaviors that impact adolescent student learning and achievement particular in underserved populations. General diversity issues and topics specific issues that put adolescents at risk for academic failure and other negative trajectories will be explored.

Contact department for information to register for this course.

EDHD674 **Self Processes in Adolescence: Implications for Academic Achievement and School Adjustment**

Credit only granted for: EDHD619L or EDHD674. Formerly: EDHD619L.

Study of the development of the self from infancy through adolescence, and examination of the literature on the self processes of special adolescent populations as they relate to achievement-related orientations and school adjustment in secondary settings.

Contact department for information to register for this course.

EDHD718 **Apprenticeship in College Teaching**

(Perm req)

For graduate students teaching autonomously for the first, second, or third tiem at the University of Maryland, College Park; not intended for teaching assistants. This course provides graduate student teachers with a set of structured experiences that foster professional growth and development in the role of college instructor. Includes seminars on the scholarship of college teaching and principles of optimal college classroom environments, peer and faculty in-class observations of teaching, and guided reflective analysis of experience in the classroom.

0101	Jennie Lee-Kim F 1:00pm - 3:30pm	Seats (Total: 14) EDU 3236

EDHD751 **Child Development and Poverty**

Prerequisite: EDHD720; or permission of EDUC-Human Development and Quantitative Methodology department.

This course examines the theoretical, methodological, and empirical literature on the effects of poverty on children's development from a multidisciplinary perspective. It includes basic concepts in methodology, measurement design, and issues related to connecting basic research on poverty and children to policy and program interventions.

0101	Natasha Cabrera Th 1:00pm - 3:45pm	Seats (Total: 20) EDU 3236

EDHD775 **Human Development and Neuroscience**

(Perm req)

Prerequisite: EDHD601; or permission of EDUC-Human Development and Quantitative Methodology department.

Course focuses on the biological bases of human behavior including physiological processes which have an impact on human development.

0101	Rachel Romeo Tu 1:00pm - 3:45pm	Seats (Total: 20) EDU 3236

EDHD789 **Internship in Human Development**

(Perm req)

Internship experience in one or more human service agencies in the community.

Contact department for information to register for this course.

EDHD798 **Laboratory in Human Development**

(Perm req)

Independent research supervised by an instructor in a research setting.

Limited to human development majors.

Contact department for information to register for this course.

EDHD799 **Master's Thesis Research**

(Perm req)

Registration required to the extent of six hours for master's thesis.

Limited to human development majors.

Contact department for information to register for this course.

EDHD835 **The Development of Achievement Motivation**

Prerequisite: EDHD830 or EDHD721; or permission of EDUC-Human Development and Quantitative Methodology department.

Development of achievement motivation and how it relates to academic achievement during the elementary and secondary school years. Expectancy-value theory, attribution theory, self-efficacy theory, socialization of achievement motivation.

0101	Patricia Alexander	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2102

EDHD888 **Apprenticeship in Human Development Research**

(Perm req)

Apprenticeship in Human Development research.

Contact department for information to register for this course.

EDHD889 **Practicum in Human Development**

(Perm req)

Field experience in applied human development at a professional level of competence in a particular role with appropriate supervision.

Contact department for information to register for this course.

EDHD898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

EDHD899 **Doctoral Dissertation Research**

(Perm req)

Registration required to 12-18 hours for a Ph.D. dissertation.

Limited to human development majors.

Contact department for information to register for this course.

EDHI Education Leadership, Higher Ed and International Ed — Spring 2024

EDHI489 **Field Experiences in Education**

(Perm req)

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHI498 **Special Problems in Education**

(Perm req)

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHI607 **Culture and Education in a Global Context**

Credit only granted for: EDHI607, EDPL607, or EDPS607. Formerly: EDPL607.

Examines cultural theories and analyzes cultural influences in education. Course materials and discussion critically analyze cultural transmission and schooling practices. Also examined are politics of culture, multiculturalism, global cultural clashes, and educators as critical culture workers.

0101	Jing Lin	Seats (Total: 20)
	W 4:15pm - 7:00pm Class time/details on ELMs	EDU 1315 ONLINE

EDHI653 **Organization and Administration of Higher Education**

Credit only granted for: EDHI653, EDPL653, or EDPS653. Formerly: EDPL653.

Basic concepts and terminology related to organizational behavior and institutional governance structures. The governance and organization of higher education in the United States.

0101	Jeongeun Kim	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 3233

EDHI677 **Ranking System in Higher Education: How They Work and Why They Matter**

Credit only granted for: EDHI677 or EDHI788W. Formerly: EDHI788W.

A critical examination of domestic and international university rankings systems from their historic origins to current day. Students explore the criteria used to identify quality, the methods used to collect data, and the impact of ranking systems on institutional decision-making.

0101	Jeongeun Kim W 7:00pm - 9:45pm Class time/details on ELMs	Seats (Total: 15) Location: TBA ONLINE

EDHI679 **Master's Seminar**

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

EDHI684 **Alternative Education, Alternative Development**

Recommended: EDHI606. Credit only granted for: EDHI684 or EDHI788D. Formerly: EDHI788D.

A critical examination of the political economy of education and international development policies and practices. Focus is on the implications of these critiques for alternative education and development policies and practices.

0101	Steven Klees Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 1315 ONLINE

EDHI689 **Practicum In Educational Administration and Supervision**

(Perm req)

Promotes skill development in managerial, leadership and supervisory areas. Practicum is based on results of diagnostic instruments and an individual professional development plan.

Contact department for information to register for this course.

EDHI750 **International Higher Education**

Credit only granted for: EDHI750, EDPL750, or EDPS750. Formerly: EDPL750.

Comparison of higher education systems in several countries, and of the problems and issues in higher education faced by these countries.

0101	Jing Lin M 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 1315 ONLINE

EDHI754 **Higher Education Finance**

Credit only granted for: EDHI754, EDPL754, or EDPS754. Formerly: EDPL754.

Economic perspectives on higher education. Ways of financing higher education and current finance issues. Higher education budget concepts and processes.

0101	Marvin Titus	Seats (Total: 15)
	Tu 4:15pm - 7:00pm	JMZ 3120

EDHI788J **Special Topics in Education Policy and Administration; Education in Conflict and Emergencies**

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Zeena Zakharia	Seats (Total: 20)
	Th 4:15pm - 7:00pm	EDU 3233

EDHI788M **Special Topics in Education Policy and Administration; Introduction to Higher Education Policy**

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Awilda Rodriguez	Seats (Total: 15)
	W 4:15pm - 7:00pm	JMZ 1224
	Class time/details on ELMs	ONLINE

EDHI788O **Special Topics in Education Policy and Administration; International Education Grant/Proposal Writing**

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Mohammad Malik Sakil	Seats (Total: 20)
	Th 7:00pm - 9:45pm	ONLINE
	Class time/details on ELMs	ONLINE
	Meeting Dates: Jan 25th, Feb 1st, Feb 8th, Feb 15th, Feb 29th.	

EDHI788X **Special Topics in Education Policy and Administration; International Investigations in Cuban Education**

Special and intensive treatment of current topics and issues in education policy and administration.

Cross-listed with EDHI798B. Credit only granted for EDHI788X or EDHI798B.

Contact department for information to register for this course.

EDHI789 **Doctoral Practicum in Administration and Supervision**

Experiential activities designed to enhance student skills. Based on Individual Professional Development Plan for each student.

Contact department for information to register for this course.

EDHI798 **Special Problems in Education**

(Perm req)

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI798B **Special Problems in Education; International Investigations in Cuban Education**

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Cross-listed with EDHI788X. Credit only granted for EDHI788X or EDHI798B.

Contact department for information to register for this course.

EDHI799 **Master's Thesis Research**
Contact department for information to register for this course.

EDHI888 **Apprenticeship in Education**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Sharon Fries-Britt Contact instructor or department for details.	Seats (Total: 5)
2701	Marvin Titus Contact instructor or department for details.	Seats (Total: 5)
2801	Jeongeun Kim Contact instructor or department for details.	Seats (Total: 5)

EDHI889 **Internship in Education**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDHI898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDHI899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDMS Measurement, Statistics, and Evaluation — Spring 2024

EDMS451 **Introduction to Educational Statistics**

Restriction: Sophomore standing or higher.

Introduction to statistical reasoning; location and dispersion measures; computer applications; regression and correlation; formation of hypotheses tests; t-test; one-way analysis of variance; analysis of contingency tables.

0101	Dayeon Lee TuTh 12:30pm - 1:45pm	Seats (Total: 30) EDU 1121
0201	Marieh Arnett MW 11:00am - 12:15pm	Seats (Total: 30) EDU 3315

EDMS645 **Quantitative Research Methods I**

Research design and statistical applications in educational research: data representation; descriptive statistics; estimation and hypothesis testing. Application of statistical computer packages is emphasized.

0101	Weimeng Wang M 4:15pm - 7:00pm	Seats (Total: 30) LEF 1220

EDMS646 **General Linear Models I**

Prerequisite: EDMS645; or an equivalent introductory statistics course.

A first post-introductory inferential statistics course, with emphasis on analysis of variance procedures and designs from within the general linear modeling framework. Assignments include student analysis of education and related data; application of statistical software packages is emphasized.

0101	Jeffrey Harring W 4:15pm - 7:00pm	Seats (Total: 30) EDU 3315

EDMS647 **Causal Inference and Evaluation Methods**

Prerequisite: Must have completed or be concurrently enrolled in EDMS651.

Counterfactual (potential outcomes) framework for causal inference, design/analysis strategies for confounder control, and specific best-practice applications to the evaluation of programs.

0101	Peter Steiner Tu 4:15pm - 7:00pm	Seats (Total: 30) EDU 2119

EDMS651 **General Linear Models II**

Prerequisite: EDMS646; or students who have taken courses with comparable content may contact the department.

Multiple regression and correlation analysis; trend analysis; hierarchical and stepwise procedures; logistic regression; software for regression analysis.

0101	Yang Liu M 4:15pm - 7:00pm	Seats (Total: 30) EDU 1121

EDMS722 **Structural Modeling**

Prerequisite: EDMS657.

Statistical theory and methods of estimation used in structural modeling; computer program applications; multisample models; mean structture models; structural models with multilevel data (e.g., sampling weights, growth models, multilevel latent variable models).

0101	Gregory Hancock Tu 4:15pm - 7:00pm	Seats (Total: 30) EDU 1121

EDMS724 **Modern Measurement Theory**

(Perm req)

Prerequisite: EDMS623 and EDMS651.

Theoretical formulations of measurement from a latent trait theory perspective.

0101	Hong Jiao W 4:15pm - 7:00pm	Seats (Total: 20) JMZ 0120

EDMS769L **Special Topics in Applied Statistics in Education; Advanced Longitudinal Models**

Designed primarily for students majoring or minoring in measurement, statistics or evaluation.

0101	Jeffrey Harring Th 4:15pm - 7:00pm	Seats (Total: 15) EDU 2102

EDMS787 **Bayesian Inference and Analysis**

Prerequisite: EDMS779 or permission of the instructor. Credit only granted for: EDMS769B or EDMS787. Formerly: EDMS769B.

Models and model fitting methods commonly used in Bayesian Inference, such as Markov Chain Monte Carlo methods (e.g., Gibbs, Metropolis Sampling), with applications within and beyond the social and behavioral sciences. Analytical and philosophical differences between Frequentist and Bayesian statistics will also be highlighted.

0101	Tracy Sweet M 4:15pm - 7:00pm	Seats (Total: 20) EDU 3236

EDMS798 **Special Problems in Education**

(Perm req)

Master's, EDMS majors, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Prerequisite: permission of department.

Contact department for information to register for this course.

EDMS799 **Master's Thesis Research**

Registration required to the extent of 6 credits.

Contact department for information to register for this course.

EDMS889 **Internship in Measurement and Statistics**

Provides internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDMS898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDMS899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 12 credits.

Contact department for information to register for this course.

EDSP Education, Special Spring 2024

EDSP210 **Introduction to Special Education**

Restriction: Sophomore standing or lower. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Students examine historical foundations of special education, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals.

0101	Dawn Martin	Seats (Total: 20)
	MW 4:15pm - 5:30pm Class time/details on ELMs	LEF 0135 ONLINE

EDSP211 **Introduction to Special Education**

(Perm req)

Restriction: Sophomore standing or lower; and permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Students examine historical foundations of special education, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals.

0101	Veronica Kang Tu 1:00pm - 3:45pm	Seats (Total: 25) EDU 1315

EDSP220 **Disability in Community: Access, Accommodation, and Adaptation**

Examines the concept of disability in a variety of community settings. Drawing on classic and contemporary readings in psychology, sociology and special education, the course will couple conceptual and historical understanding of disability with first-hand service-learning experiences in the community. Students will develop a plan in several phases that encompasses principles of Universal Design for Living/Learning (UDL) to study and participate in community-based activities.

0101	Katryna Andrusik W 2:00pm - 3:30pm Class time/details on ELMs	Seats (Total: 20) EDU 3233 ONLINE

EDSP298 **Special Problems in Teacher Education**

(Perm req)

Available only to freshmen and sophomore education majors who have definite plans for individual study of approved problems relative to their preparation for teaching. Credit according to extent of work.

Contact department for information to register for this course.

EDSP311 **Peer Mentor Training and Certification**

Provides opportunities and training to facilitate inclusion of students with ID/DD on campus as a peer mentor. Students will develop understanding of disabilities and other conditions that could affect learning and other activities and learn ways to assist and build friendship through a mentor-mentee relationship.

0101	Meredith Gramlich TuTh 12:30pm - 1:45pm	Seats (Total: 75) JMZ 0220

EDSP315 **Inclusive Instruction: Reading Methods II**

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP423 and EDHD431; and track 1: Must be concurrently enrolled in EDSP430 and EDSP433; OR Track 2: Must be concurrently enrolled in EDHD415 and EDHD424.

Focus on current research and methods of teaching reading in the primary grades. Examination of development of a balanced literacy program of children of all reading levels in inclusive early childhood classrooms. Students will learn to select and use a variety of evidence-based reading strategies and assessment tools for reading and writing instruction. Includes field experiences.

0101	Jennifer McCatharn M 4:15pm - 6:15pm Contact instructor or department for details.	Seats (Total: 35) EDU 2119

EDSP376 **Fundamentals of Sign Language**

Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

0101	Michael Dunham MW 5:00pm - 6:15pm	Seats (Total: 20) JMZ 0208
0201	Elizabeth Martinez TuTh 5:00pm - 6:15pm	Seats (Total: 20) ONLINE

EDSP403 **Supporting Access for Students with Multiple Disabilities Across Settings**

(Perm req)

Prerequisite: EDSP400 or EDSP602. Jointly offered with: EDSP603. Credit only granted for: EDSP403 or EDSP603.

Knowledge and practices in characteristics of multiple disabilities, assessment, individualized educational programming, universal design processes for instruction, assistive technology, environmental accessibility, and collaboration.

0101	Monerah Al-Dubayan Class time/details on ELMs	Seats (Total: 10) ONLINE

EDSP410 **Instruction of Students with Severe Disabilities II**

Restriction: Must be in Special Education program. Jointly offered with EDSP614. Credit only granted for: EDSP410 or EDSP614.

Functional assessment, curriculum, and instruction related to academic and community functioning skills for students with severe disabilities.

MCASD/MCSPEC Program Outreach Offering. Registration restricted to program participants.

0101	Seyma Intepe Tingir M 4:15pm - 7:00pm	Seats (Total: 35) EDU 1107

EDSP415 **Assessment Techniques and Practices in Special Education**

Recommended: STAT100; or SOCY201. Restriction: Must be in Special Education program. Jointly offered with: EDSP615. Credit only granted for: EDSP415 or EDSP615.

Knowledge and skills for understanding assessment process and interpretation of assessment data. Emphasis on psychometric aspects of assessment related to screening, eligibility, and intervention planning within a Multi-Tiered System of Supports (MTSS).

0101	Kelli Cummings Tu 1:15pm - 4:00pm	Seats (Total: 35) EDU 2119

EDSP416 **Reading and Writing Instruction in Special Education I**

Restriction: Must be in Special Education program. Jointly offered with EDSP616. Credit only granted for: EDSP416 or EDSP616.

Assessment and instruction of reading and writing skills for students in special education.

0101	Veronica Kang	Seats (Total: 28)
	M 1:15pm - 4:00pm	EDU 1315

EDSP423 **Assessment in Early Childhood Special Education**

Restriction: Must be in Special Education program. Credit only granted for: EDSP423 or EDSP624.

Assessment procedures for infants and young children with disabilities, birth through grade 3.

0101	Jennifer Amilivia	Seats (Total: 35)
	M 1:15pm - 4:00pm	EDU 2119

EDSP426 **Pre-Internship II**

Corequisite: EDSP415 and EDSP416. Restriction: Must be in the Special Education major.

A 3-hour per week seminar and field placement that meets across 15 weeks. Teacher candidates will assess and provide instruction for first grade students at a local public elementary school. The field experience is also supported through content delivered in EDSP 415/615 (Assessment in Special Education) and EDSP 416/616 (Reading and Writing Instruction in Special Education). The tutoring program is meant to provide an opportunity for teacher candidates to practice the assessment and instructional skills they are learning, while also providing a needed service to the community. Teacher candidates will work one-on-one with select first graders whose teachers have determined to be in need of extra support in reading and writing.

0101	Jennifer McCatharn	Seats (Total: 28)
	W 1:00pm - 4:00pm	EDU 1315

EDSP430 **Early Intervention: Early Childhood Special Education**

Restriction: Must be in Special Education program. Credit only granted for: EDSP430 or EDSP631.

Intervention with infants and young children with disabilities. Focus on moderate and severe disabilities.

0101	Jennifer Amilivia	Seats (Total: 15)
	W 1:00pm - 3:00pm	PLS 1172

EDSP433 **Families and Culture in Early Intervention (Birth-5)**

Prerequisite: EDHD314 and EDHD425; and (EDHD419 or EDSP420). Corequisite: EDSP430, EDSP315, and EDHD431.

Provides students with the skills and information they need to work effectively with families of young children (birth to age 5) who have or are at risk for disabilities in early childhood or early intervention programs. Students will review current local, state and federal policies establishing the rights of families of infants and young children with disabilities to participate in decision making for their child. We will discuss relevant theoretical and research literature as well as the cultural and contextual issues involved in working with families of very young children. Includes field experiences.

0101	Jennifer Amilivia W 10:00am - 12:00pm	Seats (Total: 15) ASY 3215

EDSP470 **Introduction to Special Education**

Restriction: Must not have completed EDSP210. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Designed to give an understanding of the needs of all types of exceptional children.

EC/ECSE majors should register for EDSP211.

0101	Tvisha Vyas, Yang Fu MW 5:00pm - 6:15pm Class time/details on ELMs	Seats (Total: 40) TWS 0205 ONLINE
0201	Jennifer McCatharn M 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 40) EDU 1121 ONLINE

EDSP476 **Communicating with Sign Language**

(Perm req)

Prerequisite: EDSP376. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Intermediate level receptive/expressive skills in American Sign Language. Aspects of the culture, history, and research perspectives of the deaf community.

0101	Michael Dunham MW 6:30pm - 7:45pm	Seats (Total: 20) ASY 3221

EDSP485 **Assessment and Instruction in Mathematics in Special Education**

Restriction: Must be in Special Education program; or must be in one of the following programs (Special Education (Doctoral); Special Education (Master's)). Jointly offered with EDSP683. Credit only granted for: EDSP485 or EDSP683.

Instructional methods and assessment in mathematics in special education.

0101	Yewon Lee W 4:15pm - 7:00pm	Seats (Total: 24) EDU 2119

EDSP487 **Collaborative Partnerships in Special Education**

Restriction: Must be in Special Education program. Jointly offered with: EDSP687. Credit only granted for: EDSP487 or EDSP687.

Strategies for positively collaborating with families, practitioners, and community stakeholders to implement Specially Designed Instruction (SDI) for students with disabilities.

0101	Sehrish Shikarpurya W 4:30pm - 7:15pm Class time/details on ELMs	Seats (Total: 20) EDU 1121 ONLINE

EDSP489 **Field Experiences in Special Education**

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Contact department for information to register for this course.

EDSP495 **Internship II: Elementary/Middle Special Education**

Corequisite: EDSP490. Restriction: Must be in Special Education program; or must be in one of the following programs (Special Education (Doctoral); Special Education (Master's)). Jointly offered with: EDSP695. Credit only granted for: EDSP495 or EDSP695.

Internship II is a full-time 15 week field-placement experience in a local school system working with students with disabilities in an elementary or middle school environment. Internship II allows the intern to apply and integrate teaching competencies and responsibilities by systematically increasing independence in conducting all aspects of the special education mentor teacher's role. The intern will incrementally assume responsibility for planning, instruction, management, collaboration, and other essential tasks assigned in their internship placement. The intern will be responsible for the successful completion of edTPA, seminar assignments, and self-evaluation using Live Text for Foundational Competencies (FCs) and the Performance Based Assessment (PBA). Interns will be asked to recall and integrate course content from their prerequisite coursework during seminar and their field placement experience.

Students must pay a $750.00 lab fee.

0101	Stacey Williams Contact instructor or department for details.	Seats (Total: 25)

EDSP498 **Special Problems in Special Education**

(Perm req)

Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

Special education majors only.

Contact department for information to register for this course.

EDSP499 **Workshops, Clinics, and Institutes in Special Education**

The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the special education department (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing. Laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

0901	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

EDSP600 **Issues and Trends in Educating Individuals with Disabilities**

Prerequisite: 9 credits in EDSP courses. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Examines research and practice relevant to the education of individuals with disabilities.

PUE1	Kelly Piantedosi	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Special Education (M.Ed.), Autism Spectrum Disorders and related Developmental Delays and Disabilities to register. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.	
PUR1	Kelly Piantedosi	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Special Education (M.Ed. Online), Autism to register. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.	

EDSP603 **Supporting Access for Students with Multiple Disabilities Across Settings**

(Perm req)

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with: EDSP403. Credit only granted for: EDSP403 or EDSP603.

Knowledge and practices in characteristics of multiple disabilities, assessment, individualized educational programming, universal design processes for instruction, assistive technology, environmental accessibility, and collaboration .

0101	Monerah Al-Dubayan	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

EDSP614 **Instruction of Students with Severe Disabilities II**

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP410 or EDSP614.

Functional assessment, curriculum, and instruction related to academic and community functioning skills for students with severe disabilities.

MCASD/MCSPEC Program Outreach Offering. Registration restricted to program participants.

0101	Seyma Intepe Tingir	Seats (Total: 35)
	M 4:15pm - 7:00pm	EDU 1107

EDSP615 **Assessment Techniques and Practices in Special Education**

Prerequisite: EDSP600 and EDMS646; or permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with: EDSP415. Credit only granted for: EDSP415 or EDSP615.

Knowledge and skills for understanding assessment process and interpretation of assessment data. Emphasis on psychometric aspects of assessment related to screening, eligibility, and intervention planning within a Multi-Tiered System of Supports (MTSS).

0101	Kelli Cummings	Seats (Total: 35)
	Tu 1:15pm - 4:00pm	EDU 2119
PUA1	Jerae Kelly	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	This class is open to all graduate students. Students outside of the Special Ed. for General Ed. Teachers Certificate program need to contact edterpslearningacademy@umd.edu for an electronic stamp prior to registering. Golden ID students are not eligible for this section.	
PUA2	Seyma Intepe Tingir	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	This class is open to all graduate students. Students outside of the Special Ed. for General Ed. Teachers Certificate program need to contact edterpslearningacademy@umd.edu for an electronic stamp prior to registering. Golden ID students are not eligible for this section.	

PUA3	Dawn Molloy	Seats (Total: 25)	
	Class time/details on ELMs	ONLINE	
	This class is open to all graduate students. Students outside of the Special Ed. for General Ed. Teachers Certificate program need to contact edterpslearningacademy@umd.edu for an electronic stamp prior to registering. Golden ID students are not eligible for this section.		
PUK1	Jerae Kelly	Seats (Total: 15)	
	Class time/details on ELMs	ONLINE	
	Must be in Curriculum and Instruction (M.Ed.), CITE to register.		

EDSP616 **Reading and Writing Instruction in Special Education I**

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP41 6. Credit only granted for: EDSP416 or EDSP616.

Assessment and instruction of reading and writing skills and strategies for students in special education.

0101	Veronica Kang	Seats (Total: 28)	
	M 1:15pm - 4:00pm	EDU 1315	

EDSP631 **Early Intervention: Early Childhood Special Education**

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP43 0. Credit only granted for: EDSP430 or EDSP631.

Intervention with infants and young children with disabilities. Focus on moderate and severe disabilities.

PUR1	Jennifer Amilivia	Seats (Total: 5)	
	M 5:30pm - 7:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in Special Education (M.Ed. Online), Autism to register. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.		
PVD1	Jennifer Amilivia	Seats (Total: 25)	
	M 5:30pm - 7:45pm	BLD4 2324	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in Special Eduation (M.Ed.), Early Childood Ages Birth-5 to register. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.		

EDSP670 **Single Case Research Designs in Education**

(Perm req)

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Design, application, procedures, and analysis of single case research designs in special education to effectively evaluate instructional decisions.

0101	Seyma Intepe Tingir	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	EDU 1107

EDSP678C **Seminar in Special Education; Professional Development, Supervision and Evaluation of Instruction in Special Education**

PUB1	Carl Lashley	Seats (Total: 25)
	Meets January 25, 2024 - February 24, 2024	
	F 5:30pm - 8:15pm	ONLINE
	Sa 9:00am - 3:30pm	ONLINE
	Must be in Special Education Leadership (Ed.D.), Shady Grove to register. Registration for students outside of this program is By Permission Only. Golden ID students are not eligible for this section.	

EDSP678L **Seminar in Special Education; Leadership in Education**

PUB1	Melissa Rocco	Seats (Total: 20)
	Meets March 25, 2024 - April 28, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Special Education Leadership (Ed.D.), Shady Grove to register. Registration for students outside of this program is By Permission Only. Golden ID students are not eligible for this section.	

EDSP678P **Seminar in Special Education; Advanced Research Seminar on Program Evaluation**

PZC1	Paula Beckman	Seats (Total: 25)
	F 6:00pm - 9:00pm	Location: TBA
	Must be in the Special Education Leadership (Ed.D.), Germany to register.	

EDSP683 **Assessment and Instruction in Mathematics in Special Education**

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with EDSP48 5. Credit only granted for: EDSP485 or EDSP683.

Instructional methods and assessment in mathematics in special education.

0101	Yewon Lee	Seats (Total: 24)
	W 4:15pm - 7:00pm	EDU 2119

EDSP684 **Reading and Writing Instruction in Special Education II**

(Perm req)

Prerequisite: EDSP616. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with EDSP484. Credit only granted for: EDSP484 or EDSP684.

Development of effective reading and writing programs for students receiving special education services. Builds on the foundation established in EDSP 616.

0101	Katryna Andrusik	Seats (Total: 10)
	M 1:15pm - 4:00pm	EDU 1224

EDSP687 **Collaborative Partnerships in Special Education**

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program. Jointly offered with: EDSP487. Credit only granted for: EDSP487 or EDSP687.

Strategies for positively collaborating with families, practitioners, and community stakeholders to implement Specially Designed Instruction (SDI) for students with disabilities.

0101	Sehrish Shikarpurya	Seats (Total: 20)
	W 4:30pm - 7:15pm Class time/details on ELMs	EDU 1121 ONLINE

EDSP695 **Graduate Internship II: Elementary/Middle Special Education**

Corequisite: EDSP690. Recommended: Must be in Special Education (Master's) program EDSPM Special Education. Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP495, EDSP695 or EDSP888A.

Internship II is a full-time 15 week eld-placement experience in a local school system working with students with disabilities in an elementary or middle school environment. Internship II allows the intern to apply and integrate teaching competencies and responsibilities by systematically increasing independence in conducting all aspects of the special education mentor teacher's role. The intern will incrementally assume responsibility for planning, instruction, management, collaboration, and other essential tasks assigned in their internship placement. The intern will be responsible for the successful completion of edTPA, seminar assignments, and self-evaluation using Live Text for Foundational Competencies (FCs) and the Performance Based Assessment (PBA). Interns will be asked to recall and integrate course content from their prerequisite coursework during seminar and their eld placement experience.

Students must pay a $750.00 lab fee.

0101	Stacey Williams	Seats (Total: 25)
	Contact instructor or department for details.	

EDSP788 **Selected Topics in Special Education**

(Perm req)

Current topics and issues in teacher education.

PUE1	Agnesanne Danehey	Seats (Total: 5)
	Meets January 30, 2024 - May 7, 2024	
	Class time/details on ELMs	ONLINE

EDSP798 **Special Problems in Special Education**

(Perm req)

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

Special education majors only.

Contact department for information to register for this course.

EDSP798R **Special Problems in Special Education; Using Research to Lead School Improvement**

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

PZC1	Cameron Butler	Seats (Total: 25)
	Meets January 24, 2024 - April 1, 2024	
	Sa 9:00am - 5:00pm	ONLINE
	Must be in the Special Education Leadership (Ed.D.), Germany to register.	

EDSP799 **Master's Thesis Research**

Registration required to the extent of six hours for Master's thesis.

Special education majors only.

Contact department for information to register for this course.

EDSP850 **Intervention Research in Special Education**

Prerequisite: EDSP600. Recommended: EDMS646.

Intervention Research in Special Education focuses on the design and implementation of intervention research studies in the field of Special Education. This course will focus on knowledge and skills necessary for (a) evaluating the quality of group and single case design intervention research and related conceptual and methodological issues (e.g., replication, fidelity of implementation), (b) designing and evaluating interventions, (c) implementing interventions in schools, and (d) translating research to practice.

0101	Jade Wexler	Seats (Total: 10)
	Tu 1:15pm - 4:00pm	EDU 1224

EDSP872 **Theory and Empirical Design in Educational Research**

Prerequisite: EDMS645 and EDMS646; or permission of EDUC-Counseling, Higher Education and Special Education department. Restriction: Must be in Special Education (Doctoral) program. Credit only granted for: EDSP672 or EDSP872. Formerly: EDSP672.

Design and evaluation of quantitative research in special education across disabilities and ages.

0101	Susan De La Paz	Seats (Total: 10)
	Th 1:00pm - 3:45pm	EDU 2101

EDSP888 **Apprenticeship in Special Education**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP888A **Apprenticeship in Special Education; Apprenticeship in College Teaching**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP889 **Internship in Special Education**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Special education majors only.

Contact department for information to register for this course.

EDSP898 **Pre-Candidacy Research**
Contact department for information to register for this course.

EDSP899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. dissertation.

Special education majors only.

Contact department for information to register for this course.

EDUC Education Spring 2024

EDUC388 **Special Topics in Education; Guided Experiences in College Teaching**

(Perm req)

Restricted to students approved as undergraduate teaching assistants. Section 0101 is reserved for standard UTA program and should be taken concurrently with EDUC498, 0101 for one credit.

0201	Sharon Vanwright	Seats (Total: 20)
	Contact instructor or department for details. Contact instructor or department for details.	
	Relates to Academic Achievement Program- should be taken concurrently w th EDCI 498, Section 6601.	

EDUC388C **Special Topics in Education; Guided Experience in Teaching for Peer Educators**

(Perm req)

0101	Evelyn Covington-Moore, Rachel Blanset	Seats (Total: 15)
	Meets March 14, 2024 - May 13, 2024	
	Contact instructor or department for details.	

EDUC388T **Special Topics in Education; Guided Experiences in College Teaching - UTA**

(Perm req)

0101	Christine Hirst Bernhardt	Seats (Total: 25)	
	M 5:00pm - 7:00pm Class time/details on ELMs	ONLINE ONLINE	 Discussion

EDUC498 **Selected Topics in Education**

(Perm req)

Current topics and issues in education.

0101	Christine Hirst Bernhardt	Seats (Total: 60)
	Contact instructor or department for details.	

EDUC498B **Selected Topics in Education; Career Development and Advising**

(Perm req)

Current topics and issues in education.

0101	Christie De Leon, Brittani Berry	Seats (Total: 15)
	Contact instructor or department for details. Contact instructor or department for details.	

0201	Jessica Chew Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 7)

EDUC701 **Applied Research and Data Based Decision Making for School Leaders**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC701 or EDHI701. Formerly: EDHI701.

This course focuses on understanding school system data including student assessments, teacher and administrator evaluations and other program data. Ed.D. students will learn to evaluate the technical characteristics and implications for use of such data as well as how to design instruments to collect needed data.

PXG1	Christine Neumerski **Meets March 16, 2024 - May 4, 2024** F 4:30pm - 9:00pm Sa 8:30am - 4:00pm *Must be in School System Leadership (Ed.D.) to register.*	Seats (Total: 20) ONLINE Location: TBA

EDUC740 **Managing Educational Organizations in a Diverse Society**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC740 or EDHI740. Formerly: EDHI740.

Contemporary social and cultural influences that impact on the management of schools and school systems in a diverse society. The effects on schools and school systems of changes in the economy, family structure, demographics and technology will be examined.

PXH1	Pamela Shetley Tu 5:00pm - 8:00pm Class time/details on ELMs *Must be in School System Leadership (Ed.D.), TESOL to register.*	Seats (Total: 20) Location: TBA ONLINE

EDUC760 **The Human Dimension in Administration**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC760 or EDHI760. Formerly: EDHI760.

Course focuses on theory, research findings, and current practices in managing human resources in educational organizations. Issues related to performance evaluations, professional development, and legal and ethical standards are addressed.

PXG1	Pamela Shetley	Seats (Total: 20)
	Meets January 24, 2024 - March 2, 2024	
	F 4:30pm - 9:00pm Sa 8:30am - 4:00pm	ONLINE Location: TBA
	Must be in School System Leadership (Ed.D.) to register.	

EDUC767 **Seminar on School District Leadership**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC767 or EDHI767. Formerly: EDHI767.

Examination of theory and research related to school district leadership with focus on improvement sciences. Course uses improvement science model to understand organizational, political, community, instructional problems of practice.

PUG2	Douglas Anthony	Seats (Total: 70)
	Class time/details on ELMs	ONLINE
	Must be in School System Leadership (Ed.D.) to register.	
PUG3	Douglas Anthony	Seats (Total: 70)
	Class time/details on ELMs	ONLINE

EDUC770 **System Innovation and Transformation**

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC769, EDHI788M, or EDUC770. Formerly: EDHI788M.

Course is designed to provide EdD students understanding how complex systems improve performance and connect educational and social objectives to goals of innovation and efficiency.

PXH1	David Curry, Douglas Anthony	Seats (Total: 20)
	Th 5:00pm - 8:00pm Class time/details on ELMs	Location: TBA ONLINE
	Must be in School System Leadership (Ed.D.), TESOL to register.	

EDUC829 **Doctoral Capstone**

(Perm req)

The completion of a doctoral capstone is required for all professional practice doctoral students, allowing demonstration of excellence in professional practice in the field of education leadership. The topic, activities, and outcomes related to the doctoral capstone must be approved by the doctoral advisor and capstone committee and presented and defended by the student.

Contact department for information to register for this course.

EDUC888 **Applied Apprenticeship in Education**

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals.

PGCPS II EdD Outreach Program. Registration restricted to program participants.

PUG1	Pamela Shetley	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in School System Leadership (Ed.D.) to register.	

EDUC898 **Pre-Candidacy Research**

Pre-Candidacy Research

Contact department for information to register for this course.

EDUC899 **Dissertation of Practice Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Dissertation.

PGCPS II EdD Outreach Program. Registration restricted to program.

Contact department for information to register for this course.

EMBA Executive MBA Program Spring 2024

EMBA616 **Accounting for Senior Management**

Restriction: Must be in Executive MBA program.

This course is designed to give senior managers an overview of basic financial and managerial accounting principles and tools with emphasis on those principles and tools they can use to support various managerial decision-making tasks.

Contact department for information to register for this course.

EMBA630 **Data Models and Decisions**

Restriction: Must be in Executive MBA program.

To develop probabilistic and statistical concepts, methods and models through examples motivated by real-life data from business and to stress the role that statistics play in the managerial decision making process.

Contact department for information to register for this course.

EMBA656 **Leadership and Human Capital**

Restriction: Must be in Executive MBA program.

The overall objective of this course is to sensitize participants to the fact that managers face many dilemmas (such as the need to maintain control, yet be flexible enough to effectively change as the competitive environment requires); and therefore, managers need to have skills that will enable them to effectively manage and lead, and thus to become leader-managers. How managing versus leading-skills differ will be emphasized in this course. To raise participants' sensitivity to managerial dilemmas and the skills needed to effectively manage these, there will be extensive use of case discussions and video-clips about challenges faced by companies and their managers, and extensive opportunities for self-reflective and experiential exercises. The development of action-plans for implementing a desirable change in participants' current job-situation will also help participants to hone the skills needed to be effective change-agents, hence leaders, in their organization.

Contact department for information to register for this course.

EMBA683 **The Global Economic Environment**

Restriction: Must be in Executive MBA program.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

Contact department for information to register for this course.

EMBA690 **Strategic Management**

Restriction: Must be in Executive MBA program.

Integrative strategic management focusing on strategy formulation and implementation in domestic and global settings. Industry and competitor analysis, industry and firm value chain, leadership, goal setting, organizational structure and culture. Case study approach to top management and organizational problems.

Contact department for information to register for this course.

EMBA758A **Special Topics; Strategic Innovation and Entrepreneurship**

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA758G **Special Topics; Global Strategy**

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA758V **Special Topics; ALP-Business Problems Solving**

Selected advanced topics in the various fields of graduate study in business.

Contact department for information to register for this course.

EMBA759 **Independent Study**

(Perm req)

Independent study for Masters students in Business.

Contact department for information to register for this course.

EMBA788A **Executive Skills Mastery; Critical and Integrative Thinking**

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA788C **Executive Skills Mastery; Doing Business in Brazil**

(Perm req)

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA788E **Executive Skills Mastery; Ethics for Executives**

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA788K **Executive Skills Mastery; Doing Business in South Africa**

(Perm req)

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA788V **Executive Skills Mastery; Doing Business in Asia**

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

GX01	Zhi-Long Chen	Seats (Total: 5)
	Meets January 24, 2024 - March 12, 2024	
	Su 12:00pm - 1:00pm	VMH 1335

EMBA789 **Leadership Mastery**

This course addresses organizational challenges from the CEO or C-level perspective. At this level, the ability to engage ambiguity and chaos effectively is essential. Creating strategy while using a systems approach and understanding how each functional area interacts with the other (with both the short-term and long-term in mind) are of very high importance. The course covers topics that consume the days of senior level leaders in organizations. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA789P **Leadership Mastery**

This course addresses organizational challenges from the CEO or C-level perspective. At this level, the ability to engage ambiguity and chaos effectively is essential. Creating strategy while using a systems approach and understanding how each functional area interacts with the other (with both the short-term and long-term in mind) are of very high importance. The course covers topics that consume the days of senior level leaders in organizations. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

ENAE Engineering, Aerospace Spring 2024

ENAE200 **Aerospace Engineering Profession II**

Recommended: ENAE100. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Overview of the engineering profession as it pertains to the role of the engineer in society, professional practice and ethical standards, career development, opportunities and need for lifelong learning, importance of safety and standards, effective written, visual, and oral communications, and the impact of the engineering profession on global issues.

0101	Alison Flatau	Seats (Total: 30)	
	Tu 2:00pm - 3:15pm	ONLINE	
	Tu 11:00am - 11:50am	KEB 2107	Lab

0102	Alison Flatau Tu 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 40) ONLINE KEB 2111	Lab
0103	Alison Flatau Tu 2:00pm - 3:15pm Th 11:00am - 11:50am	Seats (Total: 30) ONLINE KEB 2107	Lab
0105	Alison Flatau Tu 2:00pm - 3:15pm Tu 12:00pm - 12:50pm	Seats (Total: 40) ONLINE KEB 2111	Lab

ENAE202 **Computing Fundamentals for Engineers**

(Perm req)

Corequisite: MATH141. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0101	Robert Sanner MW 1:00pm - 1:50pm Th 3:00pm - 5:00pm	Seats (Total: 28) EGR 1202 KEB 2107	Lab
0102	Robert Sanner MW 1:00pm - 1:50pm F 3:00pm - 5:00pm	Seats (Total: 28) EGR 1202 EGR 0312	Lab
0103	Robert Sanner MW 1:00pm - 1:50pm Th 1:00pm - 3:00pm	Seats (Total: 28) EGR 1202 KEB 2107	Lab
0104	Robert Sanner MW 1:00pm - 1:50pm F 1:00pm - 3:00pm	Seats (Total: 28) EGR 1202 EGR 0312	Lab
0105	Robert Sanner MW 1:00pm - 1:50pm Th 3:00pm - 5:00pm	Seats (Total: 28) EGR 1202 EGR 0312	Lab

ENAE288A **Topics in Aerospace Engineering; Student Initiated Course Additive Manufacturing: 3D Printing**

Introductory topics in the field of aerospace engineering.

0101	Mary Bowden, Daniel Grammer, Jeremy Kuznetsov W 12:00pm - 12:50pm	Seats (Total: 24) EGR 3114	

ENAE311 **Compressible Aerodynamics**

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Fundamentals of aerodynamics. Elements of compressible flow. Normal and oblique shock waves. Flows through nozzles, diffusers and wind tunnels. Elements of the method of characteristics and finite difference solutions for compressible flows. Aspects of hypersonic flow.

0101	Benjamin Silbaugh TuTh 12:30pm - 1:45pm	Seats (Total: 70) CHE 2108	

ENAE311H **Compressible Aerodynamics**

(Perm req)

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Fundamentals of aerodynamics. Elements of compressible flow. Normal and oblique shock waves. Flows through nozzles, diffusers and wind tunnels. Elements of the method of characteristics and finite difference solutions for compressible flows. Aspects of hypersonic flow.

0101	Benjamin Silbaugh TuTh 12:30pm - 1:45pm	Seats (Total: 8) CHE 2108	

ENAE324 **Aerospace Structures**

Prerequisite: ENES220. Restriction: Must be in Engineering: Aerospace program.

Analysis of torsion, beam bending, plate bending, buckling and their application to aerospace.

0101	Sung Lee MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 85) CSI 2117 CSI 2117	 Discussion
0201	Benjamin Silbaugh MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 80) CSI 3117 KEB 1110	 Discussion

ENAE398H **Honors Research Project**

(Perm req)

Planned sequence of steps in aerospace honors research in which students take three (3) consecutive semesters of this course in partial fulfillment of aerospace engineering honors program requirements. The first semester consists of a series of seminars and meetings with faculty mentors on honors research; two semesters consist of undergraduate honors research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference.

Contact department for information to register for this course.

ENAE404 **Space Flight Dynamics**

Prerequisite: ENAE301. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Three-dimensional motion under central fields. Solutions to orbital motion, orbital elements, time elements. Kepler's laws. Orbital maneuvering, rendezvous and station-keeping. Rigid-body attitude dynamics, spacecraft attitude dynamics.

0101	Brent Barbee	Seats (Total: 110)
	TuTh 9:30am - 10:45am	CHE 2110

ENAE414 **Incompressible Aerodynamics**

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Aerodynamics of inviscid incompressible flows. Aerodynamic forces and moments. Fluid statics/buoyancy force. Vorticity, circulation, the stream function and the velocity potential. Bernoulli's and Laplace's equations. Flows in low speed wind tunnels and airspeed measurement. Potential flows involving sources and sinks, doublets, and vortices. Development of the theory of airfoils and wings.

0101	Anya Jones	Seats (Total: 60)
	TuTh 9:30am - 10:45am	EGR 1108

ENAE420 **Computational Structural Mechanics**

Prerequisite: ENES220 and MATH241; and must have completed a course in linear algebra. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Introductory of finite element methods for aerospace engineering modeling and analysis; equips students with ability to understand manuals of commercial finite element analysis software.

0101	Sung Lee	Seats (Total: 28)
	TuTh 3:30pm - 4:45pm	MTH 0405

ENAE425 **Mechanics of Composite Structures**

Prerequisite: MATH246, ENAE324, ENES220, and MATH241.

Introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

Restriction: Must be Aerospace Engineering major or receive permission from department.

0101	Colleen Murray, Norman Wereley MWF 12:00pm - 12:50pm	Seats (Total: 22) AJC 2134	

ENAE432 **Control of Aerospace Systems**

Prerequisite: Minimum grade of C- in ENAE301 and ENAE283. Restriction: Junior standing or higher; and must be in Engineering: Aerospace program.

An introduction to the feedback control of dynamic systems. Laplace transforms and transfer function techniques; frequency response and Bode diagrams. Stability analysis via root locus and Nyquist techniques. Performance specifications in time and frequency domains, and design of compensation strategies to meet performance goals.

0101	Robert Sanner, Umberto Saetti MWF 9:00am - 9:50am M 1:00pm - 1:50pm	Seats (Total: 40) EGR 1202 PHY 1402	 Discussion
0102	Umberto Saetti, Robert Sanner MWF 9:00am - 9:50am M 2:00pm - 2:50pm	Seats (Total: 38) EGR 1202 JMP 1202	 Discussion
0103	Umberto Saetti, Robert Sanner MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 38) EGR 1202 CHE 2136	 Discussion
0104	Robert Sanner, Umberto Saetti MWF 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 38) EGR 1202 PHY 1402	 Discussion

ENAE450 **Robotics Programming**

Prerequisite: ENME480 or ENAE380. Restriction: Must be in the Robotics and Autonomous Systems (RAS) minor; or permission of department. Additional information: Students in the Robotics and Autonomous Systems minor should take ENME480 as a prerequisite; Aerospace Engineering students not in the minor should take ENAE380.

Introduces students to the Robot Operating System (ROS) as well as to many of the available tools commonly used in robotics. Lectures focus on theory and structure, whereas laboratory sections will focus on applications and implementations. Students learn how to create software and simulations, interface to sensors and actuators, and integrate control algorithms. The course works through exercises involving a number of autonomous robots (i.e., ground and air vehicles) that students will eventually use in their subsequent RAS minor courses. Topics include: ROS architecture, console commands, ROS packages, simulation environments, visualizations, autonomous navigation, manipulation, and robot vision.

0101	Ivan Penskiy TuTh 3:30pm - 4:45pm	Seats (Total: 85) BPS 1243	

ENAE464 **Aerospace Engineering Laboratory**

Prerequisite: ENAE324, ENAE362, ENAE311, and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Application of fundamental measuring techniques to measurements in aerospace engineering. Includes experiments in aerodynamics, structures, propulsion, flight dynamics and astrodynamics. Correlation of theory with experimental results.

0101	Allen Winkelmann MW 11:00am - 11:50am M 2:00pm - 5:00pm	Seats (Total: 20) EGR 1202 MTH 0411	 Lab
0102	Allen Winkelmann MW 11:00am - 11:50am Tu 2:00pm - 5:00pm	Seats (Total: 20) EGR 1202 PLS 1162	 Lab
0103	Allen Winkelmann MW 11:00am - 11:50am W 2:00pm - 5:00pm	Seats (Total: 20) EGR 1202 MTH B0425	 Lab
0104	Allen Winkelmann MW 11:00am - 11:50am Th 2:00pm - 5:00pm	Seats (Total: 20) EGR 1202 PLS 1158	 Lab
0105	Allen Winkelmann MW 11:00am - 11:50am Tu 8:00am - 11:00am	Seats (Total: 20) EGR 1202 ATL 2352	 Lab
0201	Benjamin Silbaugh MW 11:00am - 11:50am Th 2:00pm - 5:00pm	Seats (Total: 25) PHY 1204 PLS 1115	 Lab

0202	Benjamin Silbaugh MW 11:00am - 11:50am F 2:00pm - 5:00pm	Seats (Total: 28) PHY 1204 CHE 2145	 Lab

ENAE467 **Advanced Space Propulsion and Power**

(Perm req)

Prerequisite: ENAE457. Restriction: Permission of Instructor. Jointly offered with: ENAE667. Credit only granted for: ENAE488I, ENAE467, or ENAE667. Formerly: ENAE488I.

Charged particle motion, drift mechanisms, plasma sheaths, creation of plasmas. Representative electrothermal, electrostatic, and electromagnetic propulsion technologies. Power production and direct-drive thrust generation using fusion as time permits.

0101	Ray Sedwick TuTh 12:30pm - 1:45pm	Seats (Total: 20) HJP 2217

ENAE471 **Aircraft Flight Testing**

Prerequisite: ENAE414. Corequisite: ENAE403. Restriction: Must be in Engineering: Aerospace program.

Provides basic instruction to aircraft flight testing and demonstrates need for systematic, well-proven technique to allow for accurate airplane performance. Concepts of aerodynamics, airplane performance, and stability and control. Emphasis on single-engine general aviation type aircraft.

0101	John Tritschler TuTh 6:30pm - 7:45pm	Seats (Total: 25) EGR 1102

ENAE482 **Aeronautical Systems Design**

Prerequisite: ENAE455, ENAE423, ENAE403, and ENAE481. Restriction: Must be in Engineering: Aerospace program; and senior standing or higher.

Senior capstone design course in the aeronautics track. Introduction of computerized methods for sizing and performance analysis. More comprehensive methods to predict weight, aerodynamics and propulsion system characteristics. Consideration in design disciplines such as vulnerability, maintainability, produceability, etc. Groups of students will complete, brief and report on a major design study to specific requirements.

Restricted to students on the Design, Build, Fly team and requires permission from the department to enroll.

0101	Dominic Palumbo MWF 1:00pm - 1:50pm	Seats (Total: 15) EGR 3114

0201	Sung Lee MW 12:00pm - 1:15pm	Seats (Total: 18) EGR 1102
	This section is restricted to students on the Design, Build, Fly team and requires permission from the department to enroll.	
0301	Vengalattore Nagaraj W 1:00pm - 4:00pm	Seats (Total: 10) EGR 1110
	This section is restricted to students in DOE Challenge and requires permission of instructor to enroll.	
0401	James Baeder, Kevin Bowcutt TuTh 1:45pm - 3:00pm MW 1:40pm - 2:30pm	Seats (Total: 2) ONLINE CHE 2116 Lab
	Students must be part of the Hypersonics Capstone sequence and must have permission from the department (anhentz@umd.edu) to enroll.	
0501	Sung Lee TuTh 12:30pm - 1:45pm	Seats (Total: 10) ATL 2330

ENAE484 **Space Systems Design**

Prerequisite: ENAE423, ENAE483, ENAE441, and ENAE457. Restriction: Must be in Engineering: Aerospace program.

Senior capstone design course in the space track. Group preliminary design of a space system, including system and subsystem design, configuration control, costing, risk analysis, and programmatic development. Course also emphasizes written and oral engineering communications.

0101	David Akin, Brent Barbee TuTh 11:00am - 12:15pm	Seats (Total: 25) JMP 1109
0103	David Akin, Jarred Young MW 12:00pm - 1:15pm	Seats (Total: 25) EGR 3102
0104	David Akin MW 3:30pm - 4:45pm	Seats (Total: 25) MTH 0102
0105	Jarred Young, David Akin TuTh 2:00pm - 3:15pm	Seats (Total: 22) JMP 1109

0201	Kevin Bowcutt, James Baeder TuTh 1:45pm - 3:00pm MW 1:40pm - 2:30pm	Seats (Total: 8) ONLINE CHE 2116	 Lab
	Students must be part of the Hypersonics Capstone sequence and must have permission from the department (anhentz@umd.edu) to enroll.		

ENAE488C **Topics in Aerospace Engineering; Computational Fluid Dynamics**

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisite: ENAE311; ENAE202; ENAE432; MATH240, 246; Computer programming experience either in MATLAB, FORTRAN, C++, or Python. Restriction: Must be in Engineering: Aerospace program. An introduction to Computational Fluid Dynamics (CFD), with an emphasis on the application of CFD to predict fluid flow behavior for basic and moderately complex geometries. Introduces students to the entire process of CFD from grid generation, application of CFD solvers, and post-processing using state-of-the-art commercial software. Finite difference and finite volume methods, explicit and implicit schemes, solutions of elliptic, parabolic, and hyperbolic equations. Additionally, students will be provided with a fundamental understanding that will enable them to choose the right CFD tools, evaluate, and CFD results.

0101	Ashish Nedungadi Th 4:00pm - 6:30pm	Seats (Total: 15) BPS 1234

ENAE488G **Topics in Aerospace Engineering; Offshore Wind Energy Fundamentals**

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Restrictions: Junior Status This course will introduce students to the various fundamental key aspects related to offshore wind. The first part of the course will cover the basics of meteorology related to wind and waves and then how wind turbines are able to change the translational kinetic energy in thewind into rotational kinetic energy of the blades. The second portionconcerns thestructures of offshore wind turbines and how they are installed. The third portion then looks at how the turbine is controlled to convert therotational kinetic energy to electricity in a safe and efficient manner. The fourth portion specializes in the environmental and financial issues associated with offshore wind farms. Finally the long term operations and maintenance of individual turbines and wind farms will be explored. Successful completion of this course should be sufficient to enable entry into the offshore wind industry while also encouraging the student to examine each of these five areas in more detail.

0101	James Baeder MWF 4:00pm - 4:50pm	Seats (Total: 10) EGR 0135

ENAE488O **Topics in Aerospace Engineering; Introduction to Autonomous Multi-Robot Swarms**

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisite: A programming course such as ENAE202 or similar and a linear algebra course such as MATH240 or MATH461 or similare; or permission of instructor. Restriction: Must be a student in the Aerospace Engineering major. All other students would need to obtain permission from the instructor. Overview of problems, applications, and methods for autonomous multi-robot swarms, including coordination, cooperation, navigation, planning, control, and distributed sensing. This course will also cover different organizations of multi-robot swarms and the concept of emergent behavior. Assignments will involve programming the behavior of multi-robot swarms in simulation and in testbeds.

0101	Michael Otte	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	PLS 1172

ENAE488P **Topics in Aerospace Engineering; Hypersonic Aerodynamics**

Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

Prerequisites: ENAE311 and MATH246. Cross-listed with ENAE682. Credit only granted for ENAE488P or ENAE682. Hypersonic shock and expansion waves, Newtonian theory, Mach methods, numerical solutions to hypersonic inviscid flows, hypersonic boundary layer theory, viscous interactions, numerical solutions to hypersonic viscous flows. Applications to hypersonic vehicles.

0101	Hassan Saad Ifti	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PHY 4222

ENAE499 **Elective Research**

(Perm req)

Undergraduate research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference or competition.

Contact department for information to register for this course.

ENAE633 **Helicopter Dynamics**

(Perm req)

Prerequisite: ENAE631. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

Flap dynamics. Mathematical methods to solve rotor dynamics problems. Flap-lag-torsion dynamics and identify structural and inertial coupling terms. Overview on rotary wing unsteady aerodynamics. Basic theory of blade aeroelastic stability and ground and air resonance stability, vibration analyses and suppression.

0101	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 15) JMP 2222	
TV01	Anubhav Datta TuTh 9:30am - 10:45am	Seats (Total: 15) Location: TBA	

ENAE634 **Helicopter Design**

(Perm req)

Prerequisite: ENAE631. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

Principles and practice of the preliminary design of helicopters and similar rotary wing aircrafts. Design trend studies, configuration selection and sizing methods, performance and handling qualities analyses, structural concepts, vibration reduction and noise. Required independent design project conforming to a standard helicopter request for proposal (RFP).

0101	Inderjit Chopra, Vengalattore Nagaraj F 1:00pm - 2:50pm F 3:00pm - 4:50pm	Seats (Total: 15) JMP 1109 JMP 1109	 Lab

ENAE635 **Helicopter Stability and Control**

(Perm req)

Prerequisite: ENAE631. Restriction: Permission of ENGR-Aerospace Engineering department.

Advanced dynamics as required to model rotorcraft for flight dynamic studies. Development of helicopter simulation models and specifications of handling qualities. Methods for calculation of trim, poles, frequency response, and free flight response to pilot inputs.

0101	Umberto Saetti TuTh 2:00pm - 3:15pm	Seats (Total: 15) PHY 4222	

ENAE652 **Computational Structural Mechanics**

Restriction: Permission of instructor; and permission of ENGR-Aerospace Engineering department. Credit only granted for: ENME 674, ENAE652, ENPM652 or ENPM808F.

Fundamentals of structural mechanics and computational modeling. Finite element modeling of two- and three-dimensional solids, plates and shells. Geometrically nonlinear behavior. Structural stability such as buckling and postbuckling.

0101	Sung Lee TuTh 3:30pm - 4:45pm	Seats (Total: 5) MTH 0405	

ENAE654 **Mechanics of Composite Structures**

An introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

0101	Norman Wereley, Colleen Murray MWF 12:00pm - 12:50pm	Seats (Total: 10) AJC 2134

ENAE665 **Advanced Airbreathing Propulsion**

(Perm req)

Prerequisite: ENAE455; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

Advanced treatment of airbreathing propulsion technologies, propulsion system analysis, and engine/airframe integration. Topics will vary, but may include novel engine cycles, advanced gas turbine systems, pulsed systems, and high-speed engines, including scramjets and combined cycle systems.

Prerequisite: ENAE455 OR ENAE457. Credit only granted for ENAE665 or ENAE488B.

0101	Kenneth Yu TuTh 11:00am - 12:15pm	Seats (Total: 15) EGR 3102
TV01	Kenneth Yu TuTh 11:00am - 12:15pm	Seats (Total: 5) ONLINE

ENAE667 **Advanced Space Propulsion and Power**

(Perm req)

Prerequisite: ENAE457 or equivalent. Restriction: Permission of instructor. Jointly offered with: ENAE467. Credit only granted for: ENAE488I, ENAE467, or ENAE667.

Charged particle motion, drift mechanisms, plasma sheaths, creation of plasmas. Representative electrothermal, electrostatic, and electromagnetic propulsion technologies. Power production and direct-drive thrust generation using fusion as time permits.

0101	Ray Sedwick TuTh 12:30pm - 1:45pm	Seats (Total: 10) HJP 2217

ENAE674 **Aerodynamics of Compressible Fluids**

(Perm req)

Restriction: Permission of ENGR-Aerospace Engineering department.

One-dimensional flow of a perfect compressible fluid. Shock waves. Two-dimensional linearized theory of compressible flow. Two-dimensional transonic and hypersonic flows. Exact solutions of two-dimensional isotropic flow. Linearized theory of three-dimensional potential flow. Exact solution of axially symmetrical potential flow. One-dimensional flow with friction and heat addition.

0101	Christopher Cadou	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	EGR 3102

ENAE676 **Turbulence**

Prerequisite: ENAE673. Recommended: ENAE674.

Physical and statistical descriptions of turbulence; review of phenomenological theories for turbulent flows; scales of motion; correlations and spectra; homogeneous turbulent flows; inhomogeneous shear flows; turbulent flows in pipes and channels; turbulent boundary layers; theory of methods for turbulent flows (Reynolds stress equations, LES, DES, DNS); experimental methods for turbulence measurements.

0101	Pino Martin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ONLINE

ENAE683 **High Temperature Gas Dynamics**

Restriction: Permission of ENGR-Aerospace Engineering department.

Aspects of physical chemistry and statistical thermodynamics necessary for the analysis of high temperature flows, equilibrium and nonequilibrium chemically reacting flows, shock waves, nozzle flows, viscous chemically reacting flow, blunt body flows, chemically reacting boundary layers, elements of radiative gas dynamics and applications to hypersonic vehicles.

0101	Stuart Laurence	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	ONLINE

ENAE694 **Spacecraft Communications**

Brief overview of satellite orbits. Radio frequency communications, noise, and bandwidth limitations. Link budget analysis. Modulation and multiplexing approaches, multiple access systems. Satellite transponder and Earth station technology.

0101	David Israel	Seats (Total: 15)
	MW 5:00pm - 6:15pm	EGR 3111

ENAE696 **Spacecraft Thermal Design**

Thermal sources in space. Black-body radiation; absorptivity and emissivity; radiative thermal equilibrium. Mutually radiating plates, view angles, and interior conduction. Techniques of spacecraft thermal analysis; approaches to passive and active thermal control.

0101	Eric Silk	Seats (Total: 20)
	TuTh 6:30pm - 7:45pm	EGR 1110

ENAE743 **Applied Nonlinear Control of Aerospace Systems**

Prerequisite: ENAE641.

Mathematics and methods of nonlinear systems analysis and nonlinear control design, including nonlinear models and phenomena, Lyapunov stability, input-output stability, passivity and frequency domain analysis, nonlinear controllability and observability, feedback linearization, sliding mode control, and integrator backstepping.

0101	Derek Paley	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	EGR 3114

ENAE788G **Selected Topics in Aerospace Engineering; Offshore Wind Energy Fundamentals**

0101	James Baeder	Seats (Total: 10)
	MWF 4:00pm - 4:50pm	EGR 0135
TV01	James Baeder	Seats (Total: 5)
	MWF 4:00pm - 4:50pm	ONLINE

ENAE788M **Selected Topics in Aerospace Engineering; Hands On Autonomous Aerial Robotics**

Students will need to supply a laptop flashed with Ubuntu Linux for this class. Native installs are recommended, hypervisors and virtual machines will not be well supported and may lead to issues. This course provides students with a hands-on experience with developing unmanned aerial systems, with focus areas including implementation of a utonomy, control, and state estimation and visual perception leveraging industry-standard hardware and open source software. Students will work in small teams to setup and program multicopter testbed vehicles. Some experience and comfort with Python and C++ programming, as well as navigating the Linux operating system will be helpful.

0101	Joseph Conroy	Seats (Total: 16)
	TuTh 3:00pm - 4:15pm	EGR 1102

ENAE788O **Selected Topics in Aerospace Engineering; Introduction to Autonomous Multi-Robot Swarms**

Prerequisite: A programming course such as ENAE202 or similar and a linear algebra course such as MATH240 or MATH461 or similare; or permission of instructor. Restriction: Must be a student in the Aerospace Engineering major. All other students would need to obtain permission from the instructor. Overview of problems, applications, and methods for autonomous multi-robot swarms, including coordination, cooperation, navigation, planning, control, and distributed sensing. This course will also cover different organizations of multi-robot swarms and the concept of emergent behavior. Assignments will involve programming the behavior of multi-robot swarms in simulation and in testbeds.

0101	Michael Otte TuTh 12:30pm - 1:45pm	Seats (Total: 5) PLS 1172

ENAE788Q **Selected Topics in Aerospace Engineering; An Introduction to Hydrodynamic Stability**

Prerequisite: ENAE673 or permission of instructor. Key concepts of hydrodynamic stability theory: methods of linear stability, normal modes, energy theory of stability, absolute/convective instability, nonlinear perturbation, bifurcation theory, and transition to turbulence. Different instabilities occurring in fluid flows, e.g., Kelvin-Helmholtz, Rayleigh-Taylor, Rayleigh-Bernard, and centrifugal instabilities.

0101	Christoph Brehm TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1105

ENAE788V **Selected Topics in Aerospace Engineering; Motion Planning for Autonomous Systems**

Recommended: completion of mid-level programming course Autonomous systems (e.g., aircraft, vehicles, manipulators, and robots) must plan long-term movement that respects environmental constraints such as obstacles, other actors, and wind; system constraints such as kinematics, dynamics, and fuel; as well as factors such as time and safety. Robust autonomy also requires dealing with environmental changes, new information, and uncertainty. This course provides an overview of such problems and the methods used to solve them.

0101	Michael Otte TuTh 2:00pm - 3:15pm	Seats (Total: 18) HBK 0108

ENAE788Z **Selected Topics in Aerospace Engineering; Decision Making Under Uncertainty**

Prerequisites: Basic familiarity with probability, fluency in a high-level programming language. Autonomy for air and space vehicles is becoming an increasingly important field of study for aerospace researchers. Decision Making Under Uncertainty provides the mathematical and computational foundations to pursue research in the fields of decision-making and reinforcement learning. Specifically, this course covers topics including Markov Decision Processes (MDPs), Partially Observable MDPs, and their corresponding solvers (exact and approximate), as well as fundamentals of traditional and deepReinforcement Learning including model-free and model-based RL, Q-learning, policy gradients, actor-critics, etc. Students should have some basic familiarity with probability, fluency in a high-level programming language, and willingness to learn Python or Julia.

0101	John Martin MW 9:30am - 10:45am	Seats (Total: 20) EGR 3114
TV01	John Martin Class time/details on ELMs	Seats (Total: 10) ONLINE

ENAE791 **Launch and Entry Vehicle Design**

Prerequisite: ENAE601.

Design of aerospace vehicles for atmospheric transit to and from space. Generic formulation of atmospheric flight dynamics. Ballistic and lifting entry trajectories. Estimation of vehicle aerodynamic properties and aerothermodynamic heating. Entry thermal protection design. Trajectory analysis of sounding rockets and orbital launch vehicles. Serial, parallel, and hybrid multistaging schemes, optimal multistaging. Constrained trajectory optimization. Launch vehicle economic and reliability analysis, flight termination systems, sensors and actuators.

0101	David Akin TuTh 3:30pm - 4:45pm	Seats (Total: 20) EGR 3114
DE01	David Akin TuTh 3:30pm - 4:45pm	Seats (Total: 5) ONLINE
TV01	David Akin TuTh 3:30pm - 4:45pm	Seats (Total: 10) ONLINE

ENAE799 **Master's Thesis Research**
Contact department for information to register for this course.

ENAE898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENAE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENBC Biocomputational Engineering Spring 2024

ENBC312 **Object Oriented Programming in C++**

(Perm req)

Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides a solid foundation for object-oriented programming using the C++ programming language. It introduces fundamental conceptual tools and their implementation of object-oriented design and programming such as: object, type, class, implementation hiding, inheritance, parametric typing, function overloading, polymorphism, source code reusability, and object code reusability. Fundamental principles of object-oriented design and programming are stressed while covering the language details.

ESG1	Kyunghun Lee W 5:00pm - 7:30pm	Seats (Total: 20) BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC321 **Machine Learning for Data Analysis**

Prerequisite: Minimum grade of C- in ENBC311 and ENBC332. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Instructs students in the fundamentals of machine learning methods through examples in the biological phenomenon and clinical data analysis. This course is designed to share knowledge of real-world data science and aid to learn complex machine learning theory, algorithms, and coding libraries in a simple way. Students will learn the machine learning theory, but they will also get hands-on practice building their models using programming tools such as Python and R.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 10:30am - 11:45am	BLD4 4321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC342 **Computational Fluid Dynamics and Mass Transfer**

(Perm req)

Prerequisite: Minimum grade of C- in ENBC341; and minimum grade of C- in BIOE241 or approved prior study in Matlab; and must have earned a minimum grade of C- or be concurrently enrolled in ENBC331. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE331 or ENBC342.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

ESG1	Lan Ma	Seats (Total: 20)
	MW 1:30pm - 2:45pm	BLD4 5321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC351 **Quantitative Molecular and Cellular Biology**

Prerequisite: Minimum grade of C- in BSCI170 or BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides a quantitative analysis of the behavior of cellular and molecular systems. The focus will be the construction and application of mechanistic models of biomolecular interaction rate processes, which form the foundation of most biological functions. The course will also provide in-depth, practical exploration into data analysis of key bioengineering techniques.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	BLD4 3321

ENBC352 **Molecular Techniques Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- or concurrently enrolled in ENBC351. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of biological and biomedical problems. Students will gain hands-on experience through wet lab experiments in basic techniques relevant to bioengineering.

ESG1	Jarred Callura	Seats (Total: 20)	
	Th 1:00pm - 5:00pm	BLD4 4322	Lab
	Tu 1:30pm - 2:45pm	BLD4 4321	Discussion
	Restricted to Biocomputational Engineering students at Shady Grove.		

ENBC403 Research Methods in Biological Data Mining

Prerequisite: Minimum grade of C- or concurrently enrolled in ENBC311. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

An introduction to the fundamentals of conducting research projects utilizing a general understanding of quantitative/qualitative research, clinical data analysis, and multiple examples of different research approaches in the biological phenomenon. The course includes an overview of design strategies to implement various data mining technologies.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 1:30pm - 2:45pm	BLD4 4321

ENBC424 AI for Biocomputational Engineering

Prerequisite: Minimum grade of C- in ENBC423. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in Biocomputational Engineering major.

Introduces students to the basics and modern deep learning models in the Artificial Intelligence field applied to computer vision problems. The course will teach ResNet for image Classification/Regression, and U-Net for semantic segmentation. The course emphasizes applications of computer vision in medical imaging and cell biology, such as detecting brain tumor using semantic deep learning segmentation network and track dynamic measurements of live 3T3 cells through time using recurrent neural network. Computer vision techniques will be demonstrated using software packages implementing bio-image informatics methods, including ImageJ (FIJI), Python with Keras Tensorflow, Pytorch, and Matlab.

ESG1	Joe Chalfoun	Seats (Total: 20)
	MW 9:00am - 10:15am	BLD4 5210

ENBC441 Computational Systems Biology

Prerequisite: ENBC351. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Introduces quantitative principles for studying biological systems using computational modeling and simulations. Topics include continuous modeling of systems using ordinary differential equations, discrete modeling using Boolean networks and Markov chains, probabilistic modeling through Bayesian networks, stochastic modeling via Monte Carlo and Brownian and molecular dynamics, model optimization, and parameter estimation. Simulation algorithms that implement these approaches will be introduced through MATLAB programming.

ESG1	Lan Ma	Seats (Total: 20)	
	TuTh 11:30am - 12:45pm	BLD4 5308	
	Restricted to Biocomputational Engineering students at Shady Grove.		

ENBC455 **Bioinformatics Engineering**

Prerequisite: ENBC311. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Introduces students to the core principles of bioinformatics while encouraging students to apply their programming skills to real-world biological problems. Students will learn to utilize Python to process data sets.

ESG1	Jarred Callura	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	BLD4 3321	
	Restricted to Biocomputational Engineering students at Shady Grove.		

ENBC491 **Senior Capstone Design in Biocomputational Engineering**

Prerequisite: Must have completed 18 credits in ENBC courses.

Senior design project in which students work collaboratively in a Capstone team on a biocomputational topic. Under the guidance of a Capstone mentor, students will set project goal(s), propose project design, identify methodology, implement solutions, evaluate project results, and iterate among these steps if needed. Students will present their completed biocomputational projects to the public in a poster session. To complement the project design and implementation, students will also learn pressing ethics and DEI concerns emerging in artificial intelligence (AI), and recognize ethical responsibilities in biocomputational tasks.

ESG1	Lan Ma	Seats (Total: 20)	
	W 10:30am - 12:30pm	BLD4 5210	Lab
	M 11:00am - 11:50am	BLD4 5210	Discussion
	Restricted to Biocomputational Engineering students at Shady Grove.		

ENCE Engineering, Civil Spring 2024

ENCE100 **Introduction to Civil and Environmental Engineering**

An overview of the department of Civil and Environment Engineering. Students are introduced to the undergraduate curriculum and will be exposed to other undergraduate and graduate students at various points in their program. The course blends panel presentations by seniors and graduate students, faculty and practitioners with a project and book review to be performed by the students.

0101	Natasha Almeida e Andrade W 1:00pm - 1:50pm	Seats (Total: 100) CHE 2108

ENCE200 **Civil Engineering Graphics for Design and Construction**

(Perm req)

Prerequisite: ENES100, MATH141, and ENES102; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the basic principles and fundamentals of civil design, plan interpretation, and plan creation. Development of the knowledge and skills to analyze existing sites, environmental features, and characteristics used to develop a site properly. Introduction of the use of Computer-Aided Drafting (CAD) software in the context of civil and environmental engineering design and applications.

0201	Frank White MW 3:30pm - 4:45pm	Seats (Total: 40) EGR 1156

ENCE201 **Engineering Information Processing**

(Perm req)

Prerequisite: ENES220 and MATH241; and permission of ENGR-Civil & Environmental Engineering department. Corequisite: MATH246. Credit only granted for: ENCE201 or ENCE203.

Exploration of algorithms for solving problems in several important areas of numerical computing: roots of equations; matrix algebra and the systems of linear equations; function approximation, numerical differentiation and integration; and ordinary differential equations. Issues of solution accuracy, robustness, and efficiency are also considered. Numerical techniques are presented in the context of engineering applications, and example problems are solved using a variety of computer-based tools (primarily MATLAB).

0201	Mark Austin MWF 2:00pm - 2:50pm	Seats (Total: 70) JMP 3201

ENCE205 **Biology for Civil and Environmental Engineers**

Prerequisite: MATH140 or equivalent. Restriction: Must be in the Civil Engineering program; or permission of the Civil and Environmental Engineering Department. Credit only granted for: BIOE120 or ENCE205.

Introduction to the functions and interactions of biological systems in civil and environmental engineering systems in the context of societal issues. The course includes an introduction to biotechnological principles from a quantitative perspective, modern experimental techniques in biotechnology and methods of data analysis. Roles for civil and environmental engineers in society seen from a biotechnological perspective, and the role of biotechnology in civil and environmental engineering will be elucidated. The role of biotechnology in other engineering disciplines will also be discussed.

0101	Birthe Kjellerup Shirtliff TuTh 2:00pm - 2:50pm M 9:00am - 12:00pm	Seats (Total: 12) PLS 1111 EGR 0136	 Lab
0102	Birthe Kjellerup Shirtliff TuTh 2:00pm - 2:50pm M 3:00pm - 6:00pm	Seats (Total: 12) PLS 1111 EGR 0136	 Lab

ENCE215 **Engineering for Sustainability**

(Perm req)

Prerequisite: CHEM135; or students who have taken courses with comparable content may contact the department; and permission of ENGR-Civil & Environmental Engineering Department.

Engineers have a key role to play in planning, designing, building, and ensuring a sustainable future. In this class, a problem-based approach is used to examine fundamentally-based analyses and approaches for engineering as sustainable society, with a focus on sustainable use of energy and materials, sustainable infrastructure solutions, atmospheric sustainability and sustainable water supply, and human population growth and resource consumption and its implications for sustainability.

0101	Natasha Almeida e Andrade TuTh 8:00am - 9:15am	Seats (Total: 24) ESJ B0322
0201	Natasha Almeida e Andrade TuTh 9:30am - 10:45am	Seats (Total: 24) ESJ B0322
0301	Natasha Almeida e Andrade TuTh 2:00pm - 3:15pm	Seats (Total: 24) MTH 0201

ENCE300 **Fundamentals of Engineering Materials**

(Perm req)

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Behavior, physical, mechanical and chemical properties, design and performance of civil engineering materials, including aggregates, cement, concrete, asphalt binders and mixtures, plastics and geosynthetics, timber, metals and alloys. Modified and advanced highway materials (polymer and rubber modified mixtures, high performance concrete, composites, smart materials). Laboratory testing with hands-on experience on aggregates, Portland cement concrete, asphalt mixtures, timber and metals as per SUPERAVE, ACI design methods, and ASTM standards and specifications.

0101	Dimitrios Goulias	Seats (Total: 18)	
	Tu 12:00pm - 1:40pm	EGL 0120	
	Th 10:30am - 12:30pm	EGL 0120	Lab
	Alternating face-to-face/online meeting. See instructor for details.		
0102	Dimitrios Goulias	Seats (Total: 18)	
	Tu 12:00pm - 1:40pm	EGL 0120	
	Th 12:30pm - 2:30pm	EGL 0120	Lab
	Alternating face-to-face/online meeting. See instructor for details.		

ENCE302 **Probability and Statistics for Civil and Environmental Engineers**

(Perm req)

Prerequisite: MATH246 and ENCE201; and permission of ENGR-Civil & Environmental Engineering department.

Statistics is the science of data. Civil Engineers must often make decisions based on incomplete, variable or uncertain information. In addition, modern methods of design and analysis need to account for variability in natural, engineered and human systems. After successful completion of this class, a student should have facility and familiarity with established basic techniques for managing data, modeling variability and uncertainty, communicating about data and decisions, and supporting or defending a decision or judgment based on uncertain or incomplete data.

0102	Bilal Ayyub	Seats (Total: 40)	
	MWF 2:00pm - 2:50pm	CHE 2108	

ENCE305 **Fundamentals of Engineering Fluids**

(Perm req)

Prerequisite: ENES220, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

The theoretical bases for fluid statics and dynamics, including the conservation of mass, energy and momentum. Modeling of hydraulic systems are introduced. Emphasis on pipe flow and open-channel hydraulics, with real-world applications.

0201	Barton Forman	Seats (Total: 30)	
	MWF 10:00am - 10:50am	EGR 3106	

0301	Barton Forman MWF 11:00am - 11:50am	Seats (Total: 30) EGR 3106

ENCE310 **Introduction to Environmental Engineering**

(Perm req)

Prerequisite: PHYS260 and ENCE215; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the physical, chemical and biological systems relating to the quality of water, land and air environments. Fundamental principles will be emphasized, current environmental pollution problems will be examined and methods of pollution abatement discussed.

0101	Guangbin Li TuTh 3:30pm - 4:45pm	Seats (Total: 50) PHY 1204

ENCE320 **Introduction to Project Management**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A James Clark School of Engineering. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Principles and techniques of managing engineering projects from the initiation, through planning, execution, monitoring & control, then finally closeout.

0101	John Johnson Th 5:00pm - 7:30pm *Click here for syllabus.*	Seats (Total: 100) ANS 0408

ENCE325 **Introduction to Construction Project Management**

(Perm req)

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in a major in ARCH-School of Architecture, Planning, & Preservation; or must be in the Construction Project Management minor. And permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Learn the basic topics in sourcing, planning, financing, designing, contracting, constructing and operating buildings and other facilities in the built infrastructure. Topics include construction economics, design constructability reviews, construction process planning, contracts and procurement strategies, project scheduling and resource utilization, site layout planning, project cost and quality controls, temporary structures, environmental sustainability, project handover procedures, facility operation and management, IT-based tools for construction project and resource management.

0101	Miroslaw Skibniewski Th 5:00pm - 7:30pm	Seats (Total: 65) EGR 1108

ENCE340 **Fundamentals of Geotechnical Engineering**

(Perm req)

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Introductory study of soils in civil engineering. Soil origin, phase relationships and classification schemes. Soil hydraulics: capillary, effective stress, permeability and seepage considerations. Basic stress distribution theories and soil consolidation-settlement analysis. Integration of shear strength evaluation with slope stability analysis. If time permits, topics such as applications in geoenvironmental engineering will be covered.

0101	Intikhab Haider TuTh 3:30pm - 4:45pm	Seats (Total: 55) SPH 1303

ENCE353 **Introduction to Structural Analysis**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department; and (MATH246 and ENES220).

The basic tools of structural analysis and design. Design loads. Equilibrium of external and internal forces. Shear and moment diagrams in beams and frames. Truss analysis. Influence line diagrams. The slope-deflection method and method of consistent deformation. Matrix stiffness methods for beams, frames and trusses.

0101	Mark Austin MWF 9:00am - 9:50am	Seats (Total: 62) EGR 1108

ENCE360 **Analysis of Civil Engineering Systems**

(Perm req)

Prerequisite: ENCE201 and MATH140; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to systems approach and systems analysis in civil and environmental engineering. Introduction to systems analysis tools that facilitate engineering management decision making including optimization and computer simulation. Introduction to linear and nonlinear mathematical optimization including linear and integer programming, elementary nonlinear programming and dynamic programming.

0101	Ali Haghani TuTh 9:30am - 10:45am	Seats (Total: 36) EGR 1156

0102	Ali Haghani	Seats (Total: 36)
	TuTh 11:00am - 12:15pm	EGR 1156

ENCE370 **Introduction to Transportation Engineering and Planning**

(Perm req)

Prerequisite: ENCE201, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department.

Engineering problems of transportation by highways, airways, pipelines, waterways, and railways. Transportation modes and technologies, vehicle dynamics, basic facility design, traffic stream models, capacity analysis, transportation planning, evaluation and choice, and network analysis.

0101	Xianfeng Yang	Seats (Total: 48)
	MWF 1:00pm - 1:50pm	CHE 2118

ENCE402 **Simulation and Design of Experiments for Engineers**

(Perm req)

Prerequisite: ENCE302; and permission of ENGR-Civil & Environmental Engineering department.

Review of statistics and hypothesis testing, sample design and design of experiments, generation of discrete and continuous distributions and their applications. Introduction of simulation languages and simulation of discrete and continuous engineering systems. Output analysis, model validation and sensitivity and reliability analysis.

0101	David Lovell	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	EGR 0135

ENCE411 **Environmental Engineering Science**

(Perm req)

Prerequisite: ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Introduces the analytical techniques available to assess performance of engineering processes as they relate to water, soil, and air treatment and quality. The basic principles of environmental management, economics of waste treatment, by-product reutilization, and energy cycles are introduced and discussed. Alternative technologies are introduced and evaluated mostly by assessing their potential to reduce waste, minimize energy use, and promote sustainability. Students' activities include, a weekly lab to provide hands-on experience with environmental quality measurements and treatment techniques; on-site visits to regional industries that undertake sustainable practices; and a final research project where experimental design and laboratory techniques are used to assess interactions between technologies and natural systems and their potential for reducing environmental impacts.

0101	Alba Torrents Capdevila TuTh 8:00am - 9:15am W 10:00am - 1:00pm	Seats (Total: 9) EGR 3111 EGR 0136	 Lab
0102	Alba Torrents Capdevila TuTh 8:00am - 9:15am W 2:00pm - 5:00pm	Seats (Total: 9) EGR 3111 EGR 0136	 Lab

ENCE412 **Environmental Engineering Unit Operations**

(Perm req)

Prerequisite: ENCE305 and ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Examination of unit operations and processes encountered in environmental engineering field. Fundamental principles learned from previous classes will be applied into the design and operation of unit operations and processes, particularly in the area of water and wastewater treatment. Similar processes will be applied to air pollution control, solid waste disposal and hazardous waste treatment.

0101	Allen Davis TuTh 2:00pm - 3:15pm	Seats (Total: 43) ANS 0412

ENCE421 **Legal Aspects of Architectural and Engineering Practice**

(Perm req)

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the basic structure of the US legal system and court procedures and legal principles relevant to architectural and engineering design and construction contracts including principles of ethical, legal and professional conduct of engineers and architects.Topics include: contracts for design and construction, sales and warranties, torts and product liability, business agency and government agencies, professional liability of architects and engineers, labor laws, expert testimony, mediation and arbitration, tangible property including real estate, intellectual property including trademarks, patents and copyrights, insurance and sureties.

0101	Miroslaw Skibniewski M 5:00pm - 7:30pm	Seats (Total: 60) KEB 1200

ENCE422 **Project Cost Accounting and Economics**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn: the fundamentals of accounting; project cost accounting principles as they apply to project management; project cost accounting; and the fundamentals of engineering economics.Topics include: project feasibility analysis; reading and analyzing financial statements; cash management; cash flow analysis; depreciation and taxes; and impact on profitability; the principles of activity based costing; net present value analysis; the framework for project performance measurement, cost performance indices, and earned value analysis.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Qingbin Cui W 4:00pm - 6:40pm	Seats (Total: 75) JMP 3201

ENCE423 **Project Planning, Estimating & Scheduling**

(Perm req)

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the fundamentals of project planning, estimating, and scheduling. Understand the concepts of planning; to reduce uncertainty, improve efficiency of the operation, to set and meet objectives, and to provide a basis for monitoring and controlling the work. Be introduced to: the concepts of resource definition, assignment and management, and; the basics of project estimating (pricing) methods including global pricing strategies, types of estimates, pricing processes, overhead and profit, and project financing.Learn the basics of project scheduling including; bar charts, network-based methodologies, and linear scheduling techniques. Emphasis is placed on Critical Path Method (CPM) scheduling, a network based methodology. Be exposed to the use of scheduling software and will actually develop a CPM schedule for an actual construction project as part of a semester project.

0101	Kenneth O'Connell M 5:00pm - 7:30pm	Seats (Total: 40) CHE 2108

ENCE424 **Communication for Project Managers**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management minor. Jointly offered with: ENCE614. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman Tu 5:00pm - 7:30pm	Seats (Total: 25) AJC 2119

ENCE426 **Construction Documentation and BIM Applications in Engineering and Construction**

(Perm req)

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn the basics of construction documentation methods, with particular emphasis on Building Information Modeling (BIM). Topics include: the fundamentals of assembly, coordination, and maintenance of construction documents and implementation of BIM techniques in the design and construction processes, and; a review of Autodesk, Revit, and Navisworks and other leading BIM software. Lectures from project management faculty supplemented by guest lecturers from the construction industry.

0101	Kiley Wilfong Cullen Tu 2:00pm - 4:30pm	Seats (Total: 40) EGR 1156
0201	Kiley Wilfong Cullen Tu 5:00pm - 7:30pm	Seats (Total: 40) EGR 1156

ENCE430 **Introduction to Infrastructure and Resilience**

Prerequisite: ENCE302; or students who have taken courses with comparable content may contact the department. Corequisite: ENCE360; or students who have taken courses with comparable content may contact the department. Jointly offered with ENCE632. Credit only granted for: ENCE632, ENCE688U, ENCE430 or ENCE489U. Formerly: ENCE489U.

Develops system-level skills for the planning, design, maintenance, and operation of resilient infrastructure systems. Through this course, we will discuss a variety of infrastructure systems, both public and private, and their role in communities before and after disasters. The themes of the course will be grounded in the four phases of emergency management (mitigation, preparedness, response, and recovery) and the role that infrastructure plays in each. Through these applications areas, we will study a variety of conceptual, analytical, and computational models that support informed decision-making for these systems under uncertainty.

0101	Allison Reilly W 2:00pm - 4:40pm	Seats (Total: 20) PLS 1129

ENCE431 **Hydrologic Engineering**

(Perm req)

Prerequisite: ENCE305; and permission of ENGR-Civil & Environmental Engineering department.

An introduction to basic principles of hydrologic science including the hydrologic cycle, rainfall, surface runoff and streamflow. Special emphasis is placed on hydrologic engineering design of stormwater management and flood control facilities. Design projects are used to illustrate design practices.

0101	Kaye Brubaker MWF 9:00am - 9:50am	Seats (Total: 43) CHE 2136	

ENCE444 **Experimental Methods in Geotechnical Structural Engineering**

(Perm req)

Prerequisite: ENCE353 and ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

In the geotechnical engineering part of the course, major soils testing and their interpretation including classification, compaction, strength, and compressibility will be undertaken. The structural engineering part of this course covers test planning, loading apparatus, instrumentation, data acquisition and data analysis, as well as basic aspects of structural testing techniques and shake-table test.

0101	Yunfeng Zhang, Mohamed Aggour Tu 2:00pm - 2:50pm W 1:00pm - 4:00pm	Seats (Total: 20) MTH 0302 EGR 0120	 Lab
0201	Yunfeng Zhang, Mohamed Aggour Tu 2:00pm - 2:50pm W 1:00pm - 4:00pm	Seats (Total: 20) EGR 1102 EGL 0120	 Lab

ENCE454 **Design of Concrete Structures**

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department. Formerly: ENCE451.

Combined bending and compression, development and anchorage of reinforcement, deflections, design of slabs including one-way and two-way, design of footings, retaining walls, introduction to prestressed concrete, design of multi-story buildings.

0101	Santiago Bonetti Th 5:00pm - 7:30pm	Seats (Total: 25) EGR 2116	

ENCE455 **Design of Steel Structures**

(Perm req)

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department.

Behavior and design of members subjected to fatigue, and combined bending and compression; plate girders, composite beams, open-web joists and connections. Methods of allowable stress design, and load and resistance factor design. Elements of plastic analysis and design. Framing systems and loads for industrial buildings and bridges.

0101	Peter Chang	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	EGR 3111

ENCE467 **Civil and Environmental Engineering Design II**

Prerequisite: ENCE465; and must have completed or be concurrently enrolled in ENCE302 and ENCE305. Restriction: Permission of the ENGR-Civil & Environmental Engineering Department.

This experiential course provides structured and unstructured time for groupwork as part of the senior capstone design course sequence. The course builds on skills acquired throughout a student's academic career extending a project defined and scoped in ENCE465. The objective of this course is to provide students with hand's on experience similar to the experience encountered by new engineers working in professional engineering and construction practice. The course offers students an opportunity to develop the leadership and groupwork skills needed to meet professional expectations.

0101	Deb Niemeier	Seats (Total: 120)
	TuTh 11:00am - 12:15pm	EGR 1202

ENCE472 **Transportation Engineering**

(Perm req)

Prerequisite: ENCE302 and ENCE370; and permission of ENGR-Civil & Environmental Engineering department.

Transportation engineering concepts including transportation systems analysis, airport systems, airline and airport operations, marine transportation and urban public transportation systems.

0101	Paul Schonfeld	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	JMP 2202

ENCE489 **Special Problems in Civil Engineering**

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE489I **Special Problems in Civil Engineering; Sustainability, Infrastructure Condition & Safety**

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE489J **Special Problems in Civil Engineering; Green Global Challenge**

(Perm req)

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Prerequisite: PHYS161. This course provides a unique opportunity to explore the grand engineering challenges facing our planet through the lens of the UN Sustainable Development Goals. Students will engage on interdisciplinary teams to design solutions to address these challenges. The experience will culminate in submitting projects to and participation in the Green Challenge at t he Danish Technical University (DTU) in Denmark in June. Students from all engineering disciplines and students from other STEM disciplines, who are excited to explore interdisciplinary solutions to the world s chall enges are encouraged to apply.

0101	Birthe Kjellerup Shirtliff	Seats (Total: 20)
	TuTh 9:30am - 10:45am	CHE 2140

ENCE489X **Special Problems in Civil Engineering; Statistical and Machine Learning Models for Natural Hazards Prediction**

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Cross-listed with ENCE689X. Credit only granted for ENCE489X or ENCE689X.

0101	Michelle Bensi	Seats (Total: 15)
	M 2:00pm - 4:40pm	KEB 2111

ENCE602 **Project Procurement Management**

Fundamental concepts and techniques for project acquisition and procurement are presented. Students are introduced to the PMBOK Guide six-step procurement process and expected to develop an in-depth understanding of project evaluation, planning, financing, contracting, negotiation, and procurement execution. It will also cover emerging methods, principles, and practices in infrastructure project procurement, including Public-Private Partnerships, Carbon project procurement, and Clean Development Mechanism.

PM01	Qingbin Cui	Seats (Total: 26)
	Class time/details on ELMs	ONLINE

ENCE604 **Sustainabilty Fundamentals for Project Managers**

Addresses the fundamentals of sustainability for project managers including best practices of modern sustainable construction and project management. Commercial and residential buildings consume about 40 percent of the energy used in the United States. The course therefore emphasizes the application of the sustainable development goals to the built environment, including the practical operational aspects of sustainable facility project management and sustainable construction by contractors. The course also will cover the fundamental concepts of sustainable project development and the move towards economic prosperity, environmental protection, and social equity, taking all three dimensions into account to achieve sustainability. Project managers need to take responsibility for more sustainable development of organizations, facilities, and projects.

PM01	Neil Schulman	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly videoconference: Mondays 1:00-3:40PM.	

ENCE607 **Mastering Agile Project Management**

Learn how and why Agile project management is the fastest growing and most successful project management philosophy today. Learn the mechanics of how to design and facilitate projects using pure Agile Scrum and Lean Kanban techniques; The tradeoffs of using hybrid techniques such as Lean Startup, Scaled Agile for the Enterprise, and Disciplined Agile Development. Then go beyond these frameworks to the science beneath with the essential principles to ensure you get the best benefits of Agile project management methods.

0101	John Johnson	Seats (Total: 25)
	W 4:00pm - 6:40pm	AJC 2119

ENCE614 **Communications for Project Managers**

Restriction: Must be enrolled in the A. James Clark School of Engineering or the School of Architecture. Jointly offered with: ENCE424. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman	Seats (Total: 5)
	Tu 5:00pm - 7:30pm	AJC 2119

ENCE623 **Introduction to Advanced Scheduling**

Prerequisite: ENCE423 or ENCE662. Credit only granted for: ENCE623 or ENCE688S.

A Combination of lecture and hands-on use of software to develop advanced knowledge and skills necessary to master advanced scheduling techniques for project management and control will be used. No software purchase is necessary.

0101	Kenneth O'Connell Tu 4:00pm - 6:40pm	Seats (Total: 39) JMP 2222

ENCE627 **Project Risk Management**

Restriction: Must not have completed ENCE627.

Introduction to identifying, analyzing, assessing, and managing risks inherent to engineering projects. Includes: probability modeling, choice and value theory, schedule and cost risk, risk mitigation and transfer, and contract considerations of project risk. Examples are drawn from construction, software development, systems integration, and other large engineering projects; and cover probability basics, subjective probability, statistical data analysis, introduction to decision theory, Monte Carlo simulation, value of information, and risk-based decision making.

0101	Gregory Baecher F 8:00am - 10:40am	Seats (Total: 30) JMP 2216

ENCE632 **Introduction to Infrastructure and Resilience**

Prerequisite: ENCE302; and ENCE360. Or students who have taken courses with comparable content may contact the department. Credit only granted for: ENCE688U, ENCE632, ENCE489U or ENCE430. Formerly: ENCE688U.

Develops system-level skills for the planning, design, maintenance, and operation of resilient infrastructure systems. Through this course, we will discuss a variety of infrastructure systems, both public and private, and their role in communities before and after disasters. The themes of the course will be grounded in the four phases of emergency management (mitigation, preparedness, response, and recovery) and the role that infrastructure plays in each. Through these applications areas, we will study a variety of conceptual, analytical, and computational models that support informed decision-making for these systems under uncertainty.

0101	Allison Reilly W 2:00pm - 4:40pm	Seats (Total: 20) PLS 1129

ENCE641 **Advanced Foundations Systems**

Prerequisite: ENCE340; or students who have taken courses with comparable content may contact the department.

Review of soil properties and subsurface exploration, evaluation and design of shallow foundations, including settlement and bearing capacity of spread footings and mats. Discussion of methods of soil improvement. Analysis and design of deep foundations including single pile, pile load testing, pile group actions, and drilled shaft foundations for both vertical and horizontal loads. Load and resistance factor design concepts will be presented.

0101	Mohamed Aggour Th 5:00pm - 7:30pm	Seats (Total: 25) EGR 3114

ENCE645 **Geotechnics of Waste Disposal**

Credit only granted for: ENCE489X, ENCE645, or ENCE688X. Formerly: ENCE688X.

Fundamental aspects of geotechnical engineering that apply to problems of waste containment and remediation, basic principles of containment systems, compacted clay liners and clay mineralogy, hydraulic conductivity of compacted soils, methods of laboratory and field hydraulic conductivity measurements, design of waste containment systems, landfill stability and settlement, geosynthetic liners, waste compatibility, contaminant transport through liners, leachate collection systems, gas collection systems, covers and caps.

0101	Ahmet Aydilek Tu 4:00pm - 6:30pm	Seats (Total: 15) PLS 1168

ENCE662 **Introduction to Project Management**

Introduction to project management including: overview and concepts of project management (principles, body of knowledge, strategies); planning successful projects (defining, specifying, delivery options, scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management); and closeout(performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management).

PM01	Gregory Baecher Class time/details on ELMs *Weekly video conferencing: Thursdays 7:00-8:00am.*	Seats (Total: 35) ONLINE

ENCE664 **Legal Aspects of Engineering Design and Construction**

Examines ways in which the legal system affects the design and construction process. Focuses on contract types and the relationships between the parties in different delivery systems. Covers basics of procurement protocols along with negotiating techniques and strategies. Topics include contract law, the relationships between the parties, tort and negligence law, and the statutory principles affecting construction.

0101	Thomas Barham, Thomas Powell, Mark Groff M 4:00pm - 6:40pm	Seats (Total: 29) JMP 2217
PM01	Thomas Barham, Thomas Powell, Mark Groff M 4:00pm - 6:40pm	Seats (Total: 50) ONLINE

ENCE665 **Management of Project Teams**

Experience has shown that really excellent project managers are not only technically competent but that they have above average skills in human relations and communications. The course will prepare project managers to optimize the utilization of their most important resource: people. Relying primarily on a wide range of research and experience in the Project Team, this course will help guide project managers in building the other skills needed to be truly successful in the competitive Project Team.

PM01	Jocelyn Davis	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Weekly videoconference: Mondays 4:30-6:00pm.	

ENCE675 **Airport Planning and Design**

The planning and design of airports including site selection, runway configuration, geometric and structural design of the landing area, and terminal facilities. Methods of financing airports, estimates of aeronautical demand, air traffic control, and airport lighting are also studied.

0101	Paul Schonfeld	Seats (Total: 18)
	Tu 5:00pm - 7:45pm	EGR 3114

ENCE676 **Highway Traffic Flow Theory**

An examination of physical and statistical laws that are used to represent traffic flow phenomena. Deterministic models including heat flow, fluid flow, and energy-momentum analogies, car following models, and acceleration noise. Stochastic approaches using independent and Markov processes, Queuing models, and probability distributions.

0101	Gang-Len Chang	Seats (Total: 20)
	Th 5:00pm - 7:30pm	PHY 4222

ENCE677 **OR Models for Transportation Systems Analysis**

Fundamental skills and concepts of the quantitative techniques of operations research including: mathematical modeling, linear programming, integer programming, network optimization (shortest paths, minimum spanning trees, minimum cost network flows, maximum flows), heuristics, and basics of probabilistic modeling. Emphasis on the application of these techniques to problems arising in transportation.

0101	Sara Zahedian	Seats (Total: 20)
	W 3:30pm - 6:15pm	EGR 3114

ENCE688E **Advanced Topics in Civil Engineering; Bioremediation**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Guangbin Li	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	EGR 3111

ENCE688F **Advanced Topics in Civil Engineering; Teaching and Learning Practicum**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Birthe Kjellerup Shirtliff, Guangbin Li, Alba Torrents Capdevila, Allen Davis Tu 4:00pm - 5:00pm	Seats (Total: 15) ONLINE

ENCE688K **Advanced Topics in Civil Engineering; Flow in Open Channels and Conveyance Structures**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Kaye Brubaker MW 2:00pm - 3:15pm	Seats (Total: 15) EGR 1102

ENCE688M **Advanced Topics in Civil Engineering; Theory-Guided Machine Learning**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Prerequisite: An introductory course in Machine Learning/Data Science, probability or statistics will be beneficial.

0101	Nii O Attoh-Okine Th 5:00pm - 7:30pm	Seats (Total: 15) CHE 2116

ENCE688Y **Advanced Topics in Civil Engineering; Research Methods Seminar**

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Intended for PhD and MSc students engaged in or contemplating dissertation or thesis research. It is strongly recommended for PhD candidates to develop their research topic and build strong research capability. The course provides a sound understanding of the enterprise of engineering research, from selecting a thesis topic, to the development of a research proposal, to planning and executing a research plan, to writing a dissertation and publishable articles. Students will review published research reports, conduct a literature survey, and write a preliminary research proposal. Students will carry out assignments involving design of small experiments, and learn how to statistically analyze data and report results. The course comprises lectures from PM faculty and guest lecturers. See instructor for details pertaining to in-person class meetings.

0101	Qingbin Cui, Gregory Baecher F 11:00am - 11:50am	Seats (Total: 25) EGR 3102

ENCE688Z **Advanced Topics in Civil Engineering; Environmental Engineering Science**

(Perm req)

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

0101	Alba Torrents Capdevila TuTh 8:00am - 9:15am W 10:00am - 1:00pm	Seats (Total: 9) EGR 3111 EGR 0136	 Lab
0102	Alba Torrents Capdevila TuTh 8:00am - 9:15am W 2:00pm - 5:00pm	Seats (Total: 9) EGR 3111 EGR 0136	 Lab

ENCE689 **Seminar**

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE689X **Seminar; Statistical and Machine Learning Models for Natural Hazards Prediction**

Cross-listed with ENCE489X. Credit only granted for ENCE489X or ENCE689X. Infrastructure and other engineered systems are exposed to a variety of natural hazards, such as precipitation, high winds, storm surge, and earthquake-induced ground shaking. Assessment of the risks these hazards pose to engineered systems often involves the development of models to predict hazard severity. While hazard severity prediction models may involve a range of techniques, this course centers on prediction models that involve statistical and machine-learning approaches. Specifically, this course will focus on the practical application of statistical and machine learning regression models, including data processing, model specification, model development, and model assessment within the context of natural hazard predictions. Models selected for consideration in this course (e.g., linear/non-linear models, tree-based approaches, neural networks,and Gaussian process regression) are informed by present-day practices for multiple types of natural hazards.

0101	Michelle Bensi M 2:00pm - 4:40pm	Seats (Total: 15) KEB 2111	

ENCE710 **Steel Structures I**

Formerly: ENCE656.

Moment connections of beams and columns. Wind bracing connections. Plate girders. Floor systems for buildings. Strengthening of beams and trusses. Corrosion control. Fatigue and fracture.

0101	Yunfeng Zhang W 5:00pm - 7:30pm	Seats (Total: 30) EGR 2116	

ENCE799 **Master's Thesis Research**

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE898 **Pre-Candidacy Research**

Contact department for information to register for this course.

ENCE899 **Doctoral Dissertation Research**

(Perm req)

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCO Engineering, Cooperative Education — Spring 2024

ENCO099 **Co-Op/Intern Work Experience**

(Perm req)

Participation in a cooperative education (co-op) or internship program enables students to apply the theories that they have learned in their traditional classes with paid, supervised, career-related work experience that develops technical and professional work skills. Contact the Engineering Co-op & Career Services Office.

0101	Elizaveta Solovey, Veronica Perrigan	Seats (Total: 200)
	Contact instructor or department for details.	

ENEB Cyber-Physical Systems Engineering — Spring 2024

ENEB304 **Microelectronics and Sensors**

(Perm req)

Prerequisite: Minimum grade of C- in ENEB302; and permission from the Cyber-Physical Systems Engineering program required. Restriction: Must be in the Cyber-Physical Systems Engineering program.

An overview of basic Internet of Things (IOT) architecture, core IOT hardware enablers, and IOT sensors and their implementation. This course covers commonly used analog amplifier designs and biasing, as well as characterization in the frequency and time domains. In addition, this course discusses the physical principles in RF communications as it relates to wireless personal and local networks (WPAN/WLAN) and short-range communication systems.

ESG1	Romel Gomez	Seats (Total: 20)	
	MW 1:00pm - 2:15pm	BLD4 3335	
	W 12:00pm - 12:50pm	BLD4 3335	Discussion
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB345 **Probability & Statistical Inference**

Prerequisite: MATH141. Restriction: Must be in the Embedded Systems & Internet of Things program; and must receive permission from the Embedded Systems & Internet of Things program.

This is a foundational course on probability and statistics for data science and connected embedded systems. This covers basic statistics and probability theory, including random variables, standard distributions, moments, law of large numbers and central limit theorem, sampling methods, estimation of parameters, testing of hypotheses. The course also includes the mathematical theory of randomness, and applications to big data analysis and analysis in the presence of uncertainty, and applications to machine learning algorithms.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	Tu 9:30am - 12:00pm	BLD4 5321	
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB352 **Introduction to Networks and Protocols**

(Perm req)

Prerequisite: Minimum grade of C- in ENEB341; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

An introduction to the principles of computer networking and covers the architecture and operation of the TCP/IP protocol stack. Topics will include fundamental networking concepts, the layers of the TCP/IP protocol stack, the packet structure and operation of each layer with detailed discussion on reliable data transfer, flow control, congestion control, routing algorithms, error detection, Local Area Networks (LANs), and multiple access protocols. The course will also cover wireless protocols relevant to Internet of Things (IoT) such as WLAN (IEEE 802.11), Zigbee (IEEE 802.15.4), and Bluetooth as well as some popular IoT application-layer and network-layer protocols including CoAP, AMQP, MQTT, XMPP and 6LoWPAN. As a part of the course work, the students will attend lab sessions where they will learn how to capture and analyze network traffic, how to configure networking functions on Linux systems, and how to operate and configure routers using Juniper Networks devices in a real-world lab environment.

ESG1	Zoltan Safar	Seats (Total: 20)	
	M 9:30am - 12:00pm	BLD4 3210	
	M 2:30pm - 5:00pm	BLD4 3210	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB353 **Computer Organization for Embedded Systems**

(Perm req)

Prerequisite: Minimum grade of C- in ENEB344 and ENEB354; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

Overview of the basic principles of computer organization and design with emphasis on low resource microcontrollers common in IoT applications. The topics include assembly and machine instructions, data-path and controller design, pipelining and memory hierarchy.

ESG1	Manoj Franklin	Seats (Total: 20)	
	Th 9:30am - 12:00pm	BLD4 5332	
	Th 1:00pm - 1:50pm	BLD4 5332	Discussion
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB355 **Algorithms in Python**

Prerequisite: Minimum grade of C- in ENEB340 and ENEB354; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program. Credit only granted for: ENEB355 or ENBC322.

A study of fundamental algorithmic problem-solving techniques in Python for today's large-scale computer systems as well as microcontrollers. Algorithms are instructions for solving problems and data structures are strategies for organizing information on computers. Efficient algorithms require appropriate data structures, and vice versa. Students will learn about the algorithms and data structures that form the building blocks of Python programming language. Student will also learn to analyze the cost of algorithms, according to how their running time or space requirements grows as data size grows.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	Tu 1:00pm - 3:30pm	BLD4 3321	
	W 9:30am - 10:20am	BLD4 3202	Discussion
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB408B **Capstone Design Lab; Capstone Design Lab II**

This course is the first of a two-semester sequence of capstone design laboratory experiences required for Cyber-Physical Systems Engineering students. Students will learn the principles of design, project planning, and project management. They will develop an ability to apply engineering solutions considering public health, safety, and welfare. Students will develop a consciousness of ethical and professional responsibilities and recognition of global, cultural, social, environmental, and economic factors in the design process. Students will also develop an ability to communicate in written and oral forms and to function effectively on a team. Projects will involve hardware, including a combination of off-the-shelf and custom-made components supported by hardware descriptive language software. The projects meet specific design challenges with applications in industry, healthcare, transportation, environmental sensing, cyber-security, and machine learning.

ESG1	Jerry Wu	Seats (Total: 20)	
	M 3:45pm - 5:00pm	BLD4 1119	
	Th 1:00pm - 4:00pm	BLD4 5202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB443 **Hardware/Software Security for Embedded Systems**

Prerequisite: Permission from the Cyber-Physical Systems Engineering program; and minimum grade of C- in ENEB454. Restriction: Must be in the Cyber-Physical Systems Engineering program.

This course will provide an in-depth understanding of systems level software and hardware in designing industry-standard secured embedded systems. It aims to provide a comprehensive systems view of security, including hardware, platform software such as operating systems and integrated development environments, software development process, data protection protocols, and some aspects of cryptography. To goal is to expose students on how to develop embedded software and properly utilize platform components to ensure the highest levels of security.

ESG1	George Zaki	Seats (Total: 20)	
	Th 5:30pm - 8:00pm	BLD4 3202	
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB453 Web-Based Application Development

Prerequisite: ENEB340 and ENEB341. Restriction: Must be in the Cyber-Physical Systems Engineering program; and permission of the Cyber-Physical Systems Engineering program.

Introduction to cloud computing, computer programming in the context of developing full-featured dynamic websites. Uses a problem-solving approach to teach basics of program design and implementation using JavaScript; relates these skills to the creation of dynamic websites; then explores both the potential and limits of web-based information sources for use in research. This course provides a practical introduction to full-stack web development using PHP and JavaScript. The course will start with HTML/CSS/JavaScript to cover the client-side of applications. Then, it will move on to the server-side with PHP and integrating with a MySQL database to create a complete web application.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	Th 9:30am - 12:00pm	BLD4 3202	
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB455 Advanced FPGA System Design using Verilog for Embedded Systems

Prerequisite: Minimum grade of C- in ENEB344 and ENEB340; and permission from the Cyber-Physical Systems Engineering program. Restriction: Must be in the Cyber-Physical Systems Engineering program.

A project-oriented course on digital system design using Verilog hardware description language (HDL) in an industry-standard design environment appropriate for embedded systems. Students will implement real-world designs in field programmable gate arrays (FPGAs) as well as test and optimize the FPGA. Students will also work in teams on multiple, medium-scale digital system design projects and make oral presentations and written reports.

ESG1	Jerry Wu	Seats (Total: 20)	
	M 1:00pm - 3:30pm	BLD4 1119	
	W 1:00pm - 3:00pm	BLD4 5202	Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEB456 Machine Learning Tools

Prerequisite: ENEB345 and ENEB346. Restriction: Must be in the Cyber-Physical Systems Engineering program.

A broad introduction to machine learning and statistical pattern recognition tools. The course will teach students to model existing data and to forecast future behaviors, outcomes, and trends. It will be taught using the Azure Machine Learning Studio that provides an integrated, end-to-end data science and advanced analytics solution. It will enable students to prepare data, develop experiments, and deploy models at cloud scale. Topics include: supervised learning (Bayesian learning and classifier, parametric/non-parameteric learning, discriminant functions, support vector machines, neural networks, deep learning networks); unsupervised learning (clustering, dimensionality reduction, auto-encoders). The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition. Hands-on: implementation of Tensorflow Algorithm on TPU board.

ESG1	Nestor Michael Tiglao W 9:30am - 12:00pm W 4:30pm - 6:30pm	Seats (Total: 20) BLD4 3210 BLD4 3210	 Lab
	Restricted to students in the Cyber-Physical Systems Engineering Program at USG.		

ENEE Electrical & Computer Engineering Spring 2024

ENEE101 **Introduction to Electrical & Computer Engineering**

(Perm req)

Corequisite: MATH140. And corequisite: ENEE140 or CMSC131; or a score of 5 on the A Java AP exam; or a score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and students cannot enroll in ENEE101 and ENES100 in the same semester.

An exploration of topics within Electrical & Computer Engineering (ECE). Students will be introduced to key elements of both the Electrical Engineering and Computer Engineering curriculum, including: circuits, computing systems and software, communications and controls, electrodynamics and waves, microelectronics, signal processing, and power systems.

0101	Romel Gomez F 12:00pm - 12:50pm MW 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0102	Romel Gomez F 12:00pm - 12:50pm MW 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0103	Romel Gomez F 12:00pm - 12:50pm MW 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab

0104	Romel Gomez F 12:00pm - 12:50pm MW 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0105	Romel Gomez F 12:00pm - 12:50pm MW 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0106	Romel Gomez F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0107	Romel Gomez F 12:00pm - 12:50pm TuTh 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0108	Romel Gomez F 12:00pm - 12:50pm TuTh 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0109	Romel Gomez F 12:00pm - 12:50pm TuTh 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0110	Romel Gomez F 12:00pm - 12:50pm TuTh 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0111	Romel Gomez F 12:00pm - 12:50pm MW 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1334	 Lab
0112	Romel Gomez F 12:00pm - 12:50pm TuTh 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1334	 Lab

ENEE140 **Introduction to Programming Concepts for Engineers**

(Perm req)

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program; or must be in Engineering: Materials Science program.

Introduction to the programming environment: editing, compiling, UNIX, data types and variable scope; program selection, formatted/unformatted input/output, repetition, functions, arrays and strings.

0101	Tudor Dumitras Tu 11:00am - 12:15pm WF 9:00am - 9:50am	Seats (Total: 12) EGR 0108 AVW 1454	 Discussion
0102	Tudor Dumitras Tu 11:00am - 12:15pm WF 10:00am - 10:50am	Seats (Total: 12) EGR 0108 AVW 1454	 Discussion

ENEE150 **Intermediate Programming Concepts for Engineers**

(Perm req)

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. And ENEE140 or CMSC131; or score of 5 on the A Java AP exam; or score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Corequisite: MATH140. Restriction: Must be in Engineering: Electrical program.

Advanced programming concepts: coding conventions and style; pointers; dynamic memory allocation and data structures; linked lists; graphs; abstract data types; object-oriented design. There will be team-based software projects and group presentations.

0101	Gang Qu MW 12:30pm - 1:45pm Th 9:00am - 9:50am	Seats (Total: 14) KEB 1200 AVW 1454	 Discussion
0102	Gang Qu MW 12:30pm - 1:45pm Th 10:00am - 10:50am	Seats (Total: 14) KEB 1200 AVW 1454	 Discussion
0103	Gang Qu MW 12:30pm - 1:45pm Th 11:00am - 11:50am	Seats (Total: 14) KEB 1200 AVW 1454	 Discussion
0201	Mamadou Wade TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 14) EGR 0135 AVW 1442	 Discussion
0202	Mamadou Wade TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 14) EGR 0135 AVW 1442	 Discussion

0203	Mamadou Wade TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 14) EGR 0135 AVW 1442	Discussion

ENEE200 **Technology and Consequences: Engineering, Ethics, and Humanity**

Credit only granted for: ENEE200 or ENES200.

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

Non-majors should register for ENES200 or choose the holdfile option. Department will release available seats to students in the holdfile after the last day of Early Registration for freshmen.

0101	Timothy Reedy TuTh 9:30am - 10:45am F 9:00am - 10:15am	Seats (Total: 15) ESJ 0215 MTH 0102	Discussion
0102	Timothy Reedy TuTh 9:30am - 10:45am F 10:00am - 11:15am	Seats (Total: 15) ESJ 0215 MTH 1308	Discussion
0103	Timothy Reedy TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 0215 EGR 1102	Discussion
0104	Timothy Reedy TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 0215 MTH 0401	Discussion
0105	Timothy Reedy TuTh 9:30am - 10:45am F 2:00pm - 3:15pm	Seats (Total: 15) ESJ 0215 PHY 4222	Discussion
0201	Nicole Mogul TuTh 2:00pm - 3:15pm F 9:00am - 10:15am	Seats (Total: 15) ESJ 0215 EGR 3102	Discussion

0202	Nicole Mogul TuTh 2:00pm - 3:15pm F 10:00am - 11:15am	Seats (Total: 15) ESJ 0215 ATL 2316	 Discussion
0203	Nicole Mogul TuTh 2:00pm - 3:15pm F 10:00am - 11:15am	Seats (Total: 15) ESJ 0215 EGR 1102	 Discussion
0204	Nicole Mogul TuTh 2:00pm - 3:15pm F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 0215 MTH 1308	 Discussion
0205	Nicole Mogul TuTh 2:00pm - 3:15pm F 2:00pm - 3:15pm	Seats (Total: 15) ESJ 0215 MTH B0431	 Discussion

ENEE205 **Electric Circuits**

(Perm req)

Prerequisite: Minimum grade of C- in PHYS260; and minimum grade of C- in PHYS261; and permission of ENGR-Electrical & Computer Engineering department. Corequisite: MATH246 or ENEE290. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Design, analysis, simulation, construction and evaluation of electric circuits. Terminal Relationships. Kirchoff's laws. DC and AC steady state analysis. Node and mesh methods. Thevenin and Norton equivalent circuits. Transient behavior of first- and second-order circuits. Frequency response and transfer functions. Ideal op-amp circuits. Diode and transistor circuits.

0101	Thomas Murphy MW 12:30pm - 1:45pm Tu 12:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 12) CSI 3117 AVW 1356 AVW 1356	 Lab Discussion
0102	Thomas Murphy MW 12:30pm - 1:45pm Tu 3:00pm - 4:50pm Tu 2:00pm - 2:50pm	Seats (Total: 12) CSI 3117 AVW 1356 AVW 1356	 Lab Discussion
0103	Thomas Murphy MW 12:30pm - 1:45pm Th 12:00pm - 1:50pm Th 11:00am - 11:50am	Seats (Total: 12) CSI 3117 AVW 1356 AVW 1356	 Lab Discussion

0104	Thomas Murphy	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	CSI 3117	
	Th 3:00pm - 4:50pm	AVW 1356	Lab
	Th 2:00pm - 2:50pm	AVW 1356	Discussion
0105	Thomas Murphy	Seats (Total: 12)	
	MW 12:30pm - 1:45pm	CSI 3117	
	Tu 9:00am - 10:50am	AVW 1356	Lab
	Tu 8:00am - 8:50am	AVW 1356	Discussion
0201	Wesley Lawson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	M 12:00pm - 1:50pm	AVW 1356	Lab
	M 11:00am - 11:50am	AVW 1356	Discussion
0202	Wesley Lawson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	M 3:00pm - 4:50pm	AVW 1356	Lab
	M 2:00pm - 2:50pm	AVW 1356	Discussion
0203	Wesley Lawson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	W 3:00pm - 4:50pm	AVW 1356	Lab
	W 2:00pm - 2:50pm	AVW 1356	Discussion
0204	Wesley Lawson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	W 8:00am - 9:50am	AVW 1356	Lab
	W 10:00am - 10:50am	AVW 1356	Discussion
0205	Wesley Lawson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	KEB 1110	
	W 12:00pm - 1:50pm	AVW 1356	Lab
	W 11:00am - 11:50am	AVW 1356	Discussion

ENEE222 **Elements of Discrete Signal Analysis**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE140; or minimum grade of C- in CMSC131; and permission of ENGR- Electrical & Computer Engineering department. Corequisite: ENEE290. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Discrete- and continuous-time signals, sampling of sinusoids. Discrete Fourier transform: properties and applications. Periodic signals and Fourier series. Discrete-time linear filters in time and frequency domains. Numerical applications and implementation of algorithms (using MATLAB).

0101	Alejandra Mercado	Seats (Total: 26)	
	MW 11:00am - 12:15pm	EGR 1108	
	Th 9:00am - 9:50am	EGR 0312	Lab
	Tu 9:00am - 9:50am	EGR 0312	Discussion
0102	Alejandra Mercado	Seats (Total: 26)	
	MW 11:00am - 12:15pm	EGR 1108	
	Th 10:00am - 10:50am	EGR 0312	Lab
	Tu 10:00am - 10:50am	EGR 0312	Discussion
0201	Jonathan Simon	Seats (Total: 26)	
	TuTh 12:30pm - 1:45pm	EGR 0108	
	W 9:00am - 9:50am	KEB 2107	Lab
	F 9:00am - 9:50am	KEB 2107	Discussion
0202	Jonathan Simon	Seats (Total: 26)	
	TuTh 12:30pm - 1:45pm	EGR 0108	
	W 10:00am - 10:50am	KEB 2107	Lab
	F 10:00am - 10:50am	KEB 2107	Discussion

ENEE244 **Digital Logic Design**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in CMSC132 or ENEE150; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Sophomore standing or higher; and must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

The design and analysis of combinational and synchronous sequential systems comprising digital logic gates and flip-flop memory devices; underlying tools such as switching and Boolean algebras and Karnaugh map simplification of gate networks; design and use of decoders, multiplexers, encoders, adders, registers, counters, sequence recognizers, programmable logic arrays (PLAs), read-only memories (ROMS, PROMS), and similar devices. Arbitrary radix conversion.

0101	Mamadou Wade	Seats (Total: 12)	
	MW 2:00pm - 3:15pm	KEB 1200	
	F 9:00am - 9:50am	EGR 3111	Discussion

0102	Mamadou Wade MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 12) KEB 1200 EGR 3111	Discussion
0103	Mamadou Wade MW 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 12) KEB 1200 EGR 3111	Discussion
0201	Mamadou Wade TuTh 3:30pm - 4:45pm M 9:00am - 9:50am	Seats (Total: 12) KEB 1200 EGR 1110	Discussion
0202	Mamadou Wade TuTh 3:30pm - 4:45pm M 10:00am - 10:50am	Seats (Total: 12) KEB 1200 EGR 1110	Discussion
0203	Mamadou Wade TuTh 3:30pm - 4:45pm M 11:00am - 11:50am	Seats (Total: 12) KEB 1200 EGR 1110	Discussion

ENEE245 **Digital Circuits and Systems Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE244. And minimum grade of C- in ENEE150; or minimum grade of C- in CMSC132. And permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Introduction to basic measurement techniques and electrical laboratory equipment (power supplies, oscilloscopes, voltmeters, etc.). Design, construction, and characterization of digital circuits containing logic gates, sequential elements, oscillators, and digital integrated circuits. Introduction to digital design and simulation with the Verilog Hardware Description Language (HDL).

0101	Mamadou Wade W 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 12) CHE 2110 AVW 1324	Lab
0102	Mamadou Wade W 10:00am - 10:50am Tu 8:00am - 10:50am	Seats (Total: 12) CHE 2110 AVW 1324	Lab
0103	Mamadou Wade W 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) CHE 2110 AVW 1324	Lab

0104	Mamadou Wade W 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 12) CHE 2110 AVW 1324	 Lab
0105	Mamadou Wade W 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 12) CHE 2110 AVW 1324	 Lab
0106	Mamadou Wade W 10:00am - 10:50am M 8:00am - 10:50am	Seats (Total: 12) CHE 2110 AVW 1324	 Lab
0107	Mamadou Wade W 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 12) CHE 2110 AVW 1324	 Lab
0108	Mamadou Wade W 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) CHE 2110 AVW 1324	 Lab
0109	Mamadou Wade W 10:00am - 10:50am Th 8:00am - 10:50am	Seats (Total: 12) CHE 2110 AVW 1324	 Lab
0110	Mamadou Wade W 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 12) CHE 2110 AVW 1324	 Lab

ENEE290 **Introduction to Differential Equations and Linear Algebra for Engineers**

(Perm req)

Prerequisite: Minimum grade of C- in MATH141; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE290, MATH240, MATH246, or MATH461.

First-order differential equations, matrices and systems of linear equations, finite-dimensional vector spaces, inner product spaces, eigenvalues and eigenvectors, linear differential equations of higher order, and systems of differential equations. This course covers important topics in mathematics for Electrical and Computer Engineers. Specifically, several topics are covered, including first-order differential equations, matrices and systems of linear equations, finite-dimensional vector spaces, inner product spaces, eigenvalues and eigenvectors, linear differential equations of higher order, and systems of differential equations. Theoretical topics presented in the lectures will be reinforced by laboratory exercises.

0101	Julius Goldhar TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm W 4:00pm - 4:50pm	Seats (Total: 20) EGR 1104 KEB 2107 EGR 1102	 Lab Discussion

Students must complete all 200-level ENEE courses (or be currently registered in them) before permission will be granted to register for 300- or 400-level ENEE courses.

ENEE303 **Analog and Digital Electronics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

0101	Timothy Horiuchi MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 20) EGR 1104 PLS 1158	 Discussion
0102	Timothy Horiuchi MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 20) EGR 1104 PLS 1158	 Discussion

ENEE304 **Introduction to Micro and Nanoelectronics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE304 or ENEE303; ENEE304 or ENEE313.

Introduction to semiconductor device physics: drift-diffusion model, pn junction properties, BJTs and FETs. Electronic circuits: diode circuits, BJT and MOSFET amplifiers, logic gates and multi-transistor circuits (such as differential amplifiers and current mirrors).

0101	Neil Goldsman MW 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 15) EGR 3106 EGR 3102	 Discussion
0102	Neil Goldsman MW 2:00pm - 3:15pm M 10:00am - 10:50am	Seats (Total: 15) EGR 3106 EGR 3111	 Discussion

ENEE307 **Electronic Circuits Design Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE303; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Students will design and test analog and digital circuits at the transistor level. FETs and BJTs will be covered. The laboratory experiments will be tightly coordinated with ENEE303 materials.

0101	Timothy Horiuchi M 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) KEB 1110 AVW 1330	 Lab
0102	Timothy Horiuchi M 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 12) KEB 1110 AVW 1330	 Lab
0103	Timothy Horiuchi M 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) KEB 1110 AVW 1330	 Lab
0104	Timothy Horiuchi M 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 12) KEB 1110 AVW 1330	 Lab
0105	Timothy Horiuchi M 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 12) KEB 1110 AVW 1330	 Lab
0106	Timothy Horiuchi M 10:00am - 10:50am W 8:00am - 10:50am	Seats (Total: 12) KEB 1110 AVW 1330	 Lab

ENEE313 **Introduction to Device Physics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Danilo Romero MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 15) JMP 2116 ATL 2316	Discussion
0102	Danilo Romero MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 15) JMP 2116 JMP 2121	Discussion

ENEE322 **Signal and System Theory**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246 or ENEE290; and minimum grade of C- in ENEE222. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Must be in the following program (Engineering: Computer). Credit only granted for: ENEE322 or ENEE323.

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

0101	Richard La MW 12:30pm - 1:45pm Tu 10:00am - 10:50am	Seats (Total: 15) JMP 1109 PLS 1162	Discussion
0102	Richard La MW 12:30pm - 1:45pm Tu 11:00am - 11:50am	Seats (Total: 15) JMP 1109 PLS 1162	Discussion
0201	Andre Tits TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 15) CSI 3120 MTH B0431	Discussion
0202	Andre Tits TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 15) CSI 3120 EGR 1110	Discussion

ENEE324 **Engineering Probability**

(Perm req)

Prerequisite: Minimum grade of C- in MATH246 and ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: DATA400, STAT400 or ENEE324. Additional information: Electrical Engineering majors may NOT substitute STAT400 for ENEE324.

Axioms of probability; conditional probability and Bayes' rules; random variables, probability distribution and densities: functions of random variables: weak law of large numbers and central limit theorem. Introduction to random processes; correlation functions, spectral densities, and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation, and digital communications.

ENEE majors (09090) only.

0101	Nuno Martins MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 15) AJC 2121 EGR 3114	Discussion
0102	Nuno Martins MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 15) AJC 2121 PHY 4222	Discussion
0201	Mark Shayman TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 15) EGR 1104 PHY 4222	Discussion
0202	Mark Shayman TuTh 11:00am - 12:15pm M 3:00pm - 3:50pm	Seats (Total: 15) EGR 1104 MTH B0431	Discussion

ENEE350 **Computer Organization**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE244; and 1 course with a minimum grade of C- from (ENEE150, CMSC132); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

0101	Cunxi Yu MW 3:30pm - 4:45pm F 1:00pm - 1:50pm	Seats (Total: 23) AJC 2121 CHE 2145	Discussion
0102	Cunxi Yu MW 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 23) AJC 2121 EGR 1102	Discussion

0201	Rajeev Barua TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 25) KEB 1110 EGR 2154	 Discussion
0202	Rajeev Barua TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 25) KEB 1110 EGR 2154	 Discussion

ENEE351 **Algorithms and Data Structures**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE150 and ENEE244. Restriction: Permission of ENGR-Electrical & Computer Engineering department; and must be in the Computer Engineering Minor or the Academy of Machine Learning. Credit only granted for: ENEE351 or CMSC351.

Introduction to fundamental concepts in computer engineering, including topics in discrete math, data structures and algorithms. The course will also include a hands-on programming component. This course will provide students with the tools to design modular, time and space-efficient algorithms for real-world problems.

0101	Dinesh Manocha MW 12:30pm - 1:45pm Th 1:00pm - 1:50pm Tu 1:00pm - 1:50pm	Seats (Total: 18) AVW 1442 AVW 1442 AVW 1442	 Lab Discussion

ENEE381 **Electromagnetic Wave Propagation**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

0101	Edo Waks TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 12) EGR 0108 MTH 0101	 Discussion
0102	Edo Waks TuTh 2:00pm - 3:15pm W 12:00pm - 12:50pm	Seats (Total: 12) EGR 0108 EGR 3111	 Discussion

ENEE382 **Electromagnetics**

(Perm req)

Prerequisite: Minimum of C- or better in ENEE205, MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in the Electrical Engineering program. Credit only granted for: ENEE380 or ENEE382; ENEE381 or ENEE382.

Theory and tools needed to solve electromagnetic problems and understand how electromagnetic waves propagate and interact with materials. Fields and potentials. Maxwell's equations and wave propagation. Reflection and transmission. Transmission lines. Antennas and radiation.

0101	Wesley Lawson TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 16) AJC 2132 EGR 3111	 Discussion
0102	Wesley Lawson TuTh 2:00pm - 3:15pm MW 4:00pm - 4:50pm	Seats (Total: 18) AJC 2132 EGR 1110	 Discussion

ENEE396 **Leadership, Creativity and Service Learning**

(Perm req)

Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Introduction to engineering creativity and innovation in engineering. Application of creativity methods to topics in communication, service learning, teaching, research, and leadership. Discussions of leadership style, professional communication, and the handling of ethical dilemmas. Investigation of how experiential learning can enhance leadership and teamwork skills, connect to classroom learning and provide opportunities to gain practical experience.

0101	Wesley Lawson W 5:00pm - 6:15pm Contact instructor or department for details.	Seats (Total: 18) AJC 2132	

ENEE408A **Capstone Design Project:Microprocessor-Based Design**

(Perm req)

Prerequisite: ENEE440. This course provides a team-based experience in the design and implementation of a microprocessor-based system to solve a real-world problem. A product specification or client requirement forms the basis for the student teams development of an initial technical design specification. The team then divides into smaller groups for the parallel development of hardware and software subsystems of the product device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

0101	William Hawkins	Seats (Total: 16)	
	Th 9:30am - 10:45am	EGR 3114	
	Contact instructor or department for details.		

ENEE408D **Capstone Design Project: Mixed Signal VLSI Design**

(Perm req)

Prerequisite: ENEE303, ENEE307, and ENEE313. This course covers the design of very large scale integrated (VLSI) circuits including analysis and simulation of digital and analog circuits, layout, and component selection. The material involves extensive use of Computer-Aided Design (CAD) tools for circuit simulation and layout and draws upon knowledge from 300-level EE courses Following current industry paradigms, students work in teams to design, thoroughly simulate, and specify physical layout of mixed signal VLSI circuits prior to their fabrication in a foundry.

Click here for more course information.

0101	Pamela Abshire	Seats (Total: 30)	
	TuTh 9:30am - 10:20am	KEB 2107	
	F 11:00am - 1:50pm	KEB 2107	Discussion

ENEE408I **Capstone Design Project: Autonomous Control of Interacting Robots**

(Perm req)

Prerequisite: ENEE322; Electrical or Computer Engineering seniors. Co-requisite: ENEE460 or ENEE463. The course involves students in the design,development, and application of autonomous robotic systems. The robots are 4 wheeled vehicles with on-board sensors (cameras, acoustic sensors),computers and wireless communications capabilities. The students work in teams to program the robots to accomplish a task individually and in teams of 2 or more more robots. Applications vary from semester to semester, including racing with passing, soccer, search and identify.

0101	Shihab Shamma	Seats (Total: 18)	
	M 1:00pm - 1:50pm	EGR 2116	
	Tu 11:00am - 1:50pm	KEB 3209	Lab

ENEE408J **Capstone Design Project; Audio Electronics Engineering**

(Perm req)

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisite: ENEE303 or ENEE322. The field of electronics for musicians encompasses all the fundamentals of electrical engineering, such as general physics, electric circuits, analog and digital electronics, signals and systems as well as electromagnetics. This course will cover the fundamentals of electronics for musicians, providing the theoretical and practical tools for final class projects - to be designed, built and presented.

0101	Joseph Beaudoin Tu 9:30am - 10:45am F 1:00pm - 3:50pm	Seats (Total: 12) JMP 1109 AVW 1450	 Lab
0102	Joseph Beaudoin Tu 9:30am - 10:45am W 1:00pm - 3:50pm	Seats (Total: 12) JMP 1109 AVW 1450	 Lab

ENEE408M **Capstone Design Project; Embedded Software Design**

(Perm req)

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisite: ENEE350. Restriction: permission of department. Students will gain experience in embedded software system design with an emphasis on handling important characteristics that are common in embedded applications -- resource constraints (limited resources for processing and limited memory), and real-time interfacing to the physical world. Topics that will be covered and integrated into the students design experience include embedded processor architectures, object-oriented design, model-based design, software testing, version control, real-time processing, embedded signal processing, and concurrent programming

0101	Shuvra Bhattacharyya Tu 3:30pm - 4:45pm Th 10:00am - 12:50pm	Seats (Total: 30) KEB 2111 KEB 2111	 Lab

ENEE408U **Capstone Design Project; Unmanned Air Vehicle Design**

(Perm req)

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisites: Completion of ENEE303 and ENEE381 with "C-" or better; OR Permission of the ECE Department. This proposed course will provide a team-based experience in the design and implementation of an electronics-based system to solve an unmanned vehicle problem. The UASTS technical challenge is the basis for the team's development of an initial technical design specification. Groups within the team pursue the parallel development of hardware and software subsystems of the product or device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

Contact department for information to register for this course.

ENEE413 **Advanced Electronic Devices**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE313 or ENEE304. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical) ; and permission of ENGR-Electrical & Computer Engineering department.

Advanced devices and their physical operation, providing a thorough description of those parts not usually covered in introductory electronics courses. These include Schottky and tunnel junctions, negative resistance devices used in wireless communication, homo-structure compound semiconductor transistors, hetero-structure (quantum effect) transistors, non-volatile memory devices, photonic devices such as LEDs and solid-state lasers, solar cells, photo-detectors and camera imagers, as well as bio-related components. Special consideration will be given to achieve an understanding of noise processes that limit electronic device performance. In all cases, system-level applications will be illustrated.

0101	Danilo Romero	Seats (Total: 30)	
	MW 11:00am - 12:15pm	EGR 0135	

ENEE419M **Topics in Microelectronics; Advanced Manufacturing Laboratory (AML)**

(Perm req)

Selected topics of current importance in microelectronics.

Prerequisite: ENEE313. Credit only granted for ENEE419M, ENMA489M, or BIOE489J. An interdisciplinary course designed to provide students with an overview of key processes, technology, and manufacturing techniques involved in fabricating advanced devices and systems. Students will be exposed to state-of-the-art fabrication technologies including soft lithography, 3Dprinting, hybrid manufacturing, material functionalization, and systems integration. In addition to developing a theoretical understanding in the classroom, students will gain hands-on fabrication and characterization experience of systems that can interface with complex environments.

0101	Kevin Daniels	Seats (Total: 8)	
	TuTh 12:30pm - 1:20pm F 9:00am - 11:50am	EGR 2116 KEB 1135	Lab

ENEE425 **Digital Signal Processing**

(Perm req)

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Sampling as a modulation process; aliasing; the sampling theorem; the Z-transform and discrete-time system analysis; direct and computer-aided design of recursive and nonrecursive digital filters; the Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT); digital filtering using the FFT; analog-to-digital and digital-to analog conversion; effects of quantization and finite-word-length arithmetic.

ENEE majors (09090) only.

0101	Armand Makowski	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	EGR 1104

ENEE426 **Communication Networks**

(Perm req)

Prerequisite: ENEE324 or STAT400; and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in Engineering: Computer or Engineering: Electrical program. Credit only granted for: CMSC417 or ENEE426.

The main design issues associated with computer networks, satellite systems, radio nets, and general communication networks. Application of analytical tools of queuing theory to design problems in such networks. Review of proposed architectures and protocols.

0101	Mark Shayman	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	AJC 2132

ENEE428 **Communications Design Laboratory**

(Perm req)

Advanced Laboratory course exploring signal processing and communication systems theoretical concepts and implementing them on actual DSP based hardware in real time.

Prerequisite: ENEE324; Corequisite: ENEE425 or ENEE420. This course explores the signal processing and communication system theoretical concepts presented in ENEE 322 Signals and Systems, ENEE 324 Engineering Probability, ENEE 420 Communication Systems, and ENEE 425 Digital Signal Processing by implementing them on actual hardware in real time. In the process, students gain experience using equipment commonly used in industry, such as, oscilloscopes, spectrum analyzers, error rate test sets, channel simulators, digital signal processors, analog-to-digital and digital-to-analog converters, and signal generators. The experiments are based on using a Texas Instruments TMS320C6713 DSP Starter Kit (DSK) stand-alone board that communicates with the PC through a USB port.

0101	Steven Tretter	Seats (Total: 8)	
	W 10:00am - 10:50am	AVW 1364	
	W 2:00pm - 5:00pm	AVW 1364	Lab

ENEE436 **Foundations of Machine Learning**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (ENEE324, STAT400); and 1 course with a minimum grade of C- from (ENEE150, CMSC216); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Permission of ENGR-Electrical & Computer Engineering department. And must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; or must be in the ECE Department's Machine Learning notation program. Credit only granted for: ENEE436, ENEE439M, or CMSC422. Formerly: ENEE439M.

A broad introduction to the foundations of Machine Learning (ML), as well as hands-on experience in applying ML algorithms to real-world data sets. Topics include various techniques in supervised and unsupervised learning, as well as applications to computer vision, data mining, and speech recognition.

Priority will be given to students in the Academy of Machine Learning (AML) program. Students not in the AML program should contact their advisor for permission details.

0101	Joseph JaJa	Seats (Total: 36)	
	MW 2:00pm - 3:15pm	AJC 2132	

ENEE439D **Topics in Signal Processing; Design Experience in Machine Learning**

(Perm req)

Selected topics of current importance in signal processing.

Prerequisite: Completion of the following courses with a"C-" or better: ENEE436; ENEE324 or STAT400. Restriction: Permission of ECE Department required. A design course bringing real-world design experience to students in a team setting. It draws synergy between machine learning, data science, sensing and signal processing, and other engineering skills and knowledge.

0101	Min Wu	Seats (Total: 20)	
	Tu 2:00pm - 3:15pm	AVW 2446	
	F 10:00am - 12:30pm	AVW 2446	Lab

ENEE439N **Topics in Signal Processing; Deep Learning for Computer Vision**

(Perm req)

Selected topics of current importance in signal processing.

Contact department for information to register for this course.

ENEE440 **Microprocessors**

(Perm req)

Prerequisite: ENEE350; and completion of all lower division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.

0101	William Hawkins TuTh 12:30pm - 1:45pm	Seats (Total: 30) MTH 0407	

ENEE445 **Computer Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206; and minimum grade of C- in ENEE350; and must have earned a minimum grade of C- in all 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

This laboratory course focuses on the hardware/software interface in computer systems. Hands-on experiments are used to teach design, construction, analysis, and measurement of both hardware and software for embedded systems. Projects emphasize using microcontrollers for control, sensing, and communication through various I/O devices.

0101	William Hawkins Tu 9:30am - 10:45am Th 2:00pm - 5:00pm	Seats (Total: 12) EGR 3114 AVW 1424	 Lab

ENEE446 **Digital Computer Design**

(Perm req)

Prerequisite: ENEE350; and completion of all lower-division technical courses in the EE curriculum. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE446 or CMSC411.

Hardware design of digital computers. Arithmetic and logic units, adders, multipliers and dividers. Floating-point arithmetic units. Bus and register structures. Control units, both hardwired and microprogrammed. Index registers, stacks, and other addressing schemes. Interrupts, DMA and interfacing.

ENEE majors (09090) only.

0101	Donald Yeung TuTh 3:30pm - 4:45pm	Seats (Total: 35) AJC 2121
0201	Manoj Franklin MW 5:00pm - 6:15pm	Seats (Total: 35) AJC 2121

ENEE447 **Operating Systems**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457); and permission of ENGR-Electrical & Computer Engineering department; and (ENEE350, CMSC330, and CMSC351). Restriction: Must be in Engineering: Computer program; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE447 or CMSC412.

The course will present the theory, design, implementation and analysis of computer operating systems. Through classroom lectures, homework, and projects, students learn the fundamentals of concurrency, process management, interprocess communication and synchronization, job scheduling algorithms, memory management, input-output devices, file systems, and protection and security in operating systems. Optional topics may include communications protocols, computer security, and real-time operating systems. The lectures will be complemented with a significant level of programming, bringing up a simple operating system from scratch, concurrently as the topics are discussed in lecture. A weekly recitation section will provide TA support and an informal laboratory atmosphere. Each student will have their own board, so development will be done largely outside the classroom at each student's pace.

0101	Manoj Franklin MW 9:30am - 10:45am M 2:00pm - 3:50pm	Seats (Total: 20) CSI 1115 AVW 1442	 Lab
0102	Manoj Franklin MW 9:30am - 10:45am W 2:00pm - 3:50pm	Seats (Total: 20) CSI 1115 AVW 1442	 Lab
0103	Manoj Franklin MW 9:30am - 10:45am F 9:00am - 10:50am	Seats (Total: 20) CSI 1115 AVW 1442	 Lab
0104	Manoj Franklin MW 9:30am - 10:45am F 2:00pm - 3:50pm	Seats (Total: 20) CSI 1115 AVW 1442	 Lab

ENEE456 **Cryptography**

(Perm req)

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor . Cross-listed with: MATH456, CMSC456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Allan Yashinski MWF 3:00pm - 3:50pm	Seats (Total: 75) SYM 0200
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 49) CHE 2118

ENEE457N **Computer Systems Security**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE350; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: CMSC414 or ENEE457.

Theoretical and practical aspects of computer systems security. Topics covered include symmetric/asymmetric encryption, message authentication, digital signatures, access control, as well as network security, web security and cloud security. Students acquire tools necessary for designing secure computer systems and programs and for defending against malicious threats (e.g., viruses, worms, denial of service).

Contact department for information to register for this course.

ENEE459C **Topics in Computer Engineering; Digital CMOS VLSI Design Methods**

(Perm req)

Selected topics of current importance in computer engineering.

Prerequisites: Completion of ENEE303 and ENEE350 with a C- or better, or students who have taken courses with comparable content may contact the department; or permission of instructor (in case some of these prerequisites are not met). Jointly offered with ENEE640. Credit only granted for ENEE640 or ENEE459C. This course is geared towards developing a unified understanding of three critical aspects of VLSI: technology, design and tools. Popular methods of fabricating VLSI chips will be investigated, along with typical design practices and design tools. Topics will include photo lithography, layouts, low power and high performance design methods, fabrication randomness, ASICs, FPGAs and popular design methodologies. New directions in the field, such as 3D ICs, flash memory technology, carbonnanotubes, fin-fets and advanced cooling techniques, will be considered.

0101	Ankur Srivastava MW 3:30pm - 4:45pm	Seats (Total: 15) KEB 1200

ENEE459D **Topics in Computer Engineering; Advanced Laboratory of Digital SystemVerilog**

(Perm req)

Selected topics of current importance in computer engineering.

Prerequisite: Completion of ENEE245 and ENEE350 with a C- or better. This project-oriented course will cover the basics of verifying hardware description language (HDL) digital systems, from theory to industry practice, and the implementation by a FPGA board. Laboratory exercises will deal with applications of the concepts taught, and these will be based on verification tools currently used in industry and SystemVerilog, a hardware description and hardware verification language. The lectures will discuss the basics of verification, starting with combinational logic, and include function representations based on digital design diagrams, finite state machines, as well as processors.

0101	Jerry Wu	Seats (Total: 10)	
	Th 5:00pm - 6:15pm	AVW 1442	
	Th 11:00am - 1:50pm	AVW 2446	Lab

ENEE459V **Topics in Computer Engineering; Embedded Systems**

(Perm req)

Selected topics of current importance in computer engineering.

Prereqs: ENEE350; ENEE244; ENEE150 or CMSC216. The first decade of the 21st century was marked by the emergence of smart devices that are used in everyday life. Smart phones, smart cars, smart TV,smart thermostats, smart vacuum cleaners, to name just a few. These developments are powered in large part by the embedded systems. This course will provide students with the essential knowledge base that will enable them to tackle complex problems encountered in embedded systems design. In addition to the overview of associated hardware components and software methodologies and tools used in the development of modern embedded systems, and theory behind them, the course will include a carefully selected collection of hands-on Lab exercises that wouldhelp students get a sense of how the presented theoretical concepts connect with the real-world embedded systems applications.

0101	William Hawkins	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm	EGR 2154	

ENEE461 **Control Systems Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in ENEE322; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE461, ENME461, or ENME489N.

Students will design, implement, and test controllers for a variety of systems. This will enhance their understanding of feedback control and familiarize them with the characteristics and limitations of real control devices. They will also complete a small project. This will entail writing a proposal, purchasing parts for their controller, building the system, testing it, and writing a final report describing what they have done.

Prerequisite: permission of department. Cross-listed with ENME461. Credit granted for ENME461 or ENEE461.

0101	William Levine MW 9:00am - 9:50am M 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0102	William Levine MW 9:00am - 9:50am W 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0103	William Levine MW 9:00am - 9:50am F 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0104	William Levine MW 9:00am - 9:50am W 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab

ENEE463 **Digital Control Systems**

(Perm req)

Prerequisite: ENEE322; and completion of lower-division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Introduction to techniques for the analysis and design of linear control systems and implementation of control systems using digital technology. Topics include linearization, solution of linear equations, z-transforms and Laplace transforms, design of linear controllers, optimal control, and digital implementation of control designs. Students will use MATLAB for the solution of problems and the design of control systems.

0101	Munther Hassouneh MW 5:00pm - 6:15pm	Seats (Total: 35) EGR 1104

ENEE469O **Topics in Controls; Introduction to Optimization**

(Perm req)

Selected topics of current importance in controls.

Prerequisites: MATH240 or MATH461. Software prerequisite- Matlab. Corequisites: ENEE324 or STAT400 Students will be introduced to linear, nonlinear, unconstrained, constrained optimization. Convex optimization will be highlighted. Applications will be considered, in particular in the area of machine learning. Some optimization algorithms may be discussed, time permitting.

0101	Richard La MW 3:30pm - 4:45pm	Seats (Total: 30) EGR 2154	

ENEE473 **Electrical Machines Laboratory**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE205; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Recommended: ENEE322. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Experiments involving single and three phase transformers, induction machines, synchronous machines and D.C. machines.

0101	David Bowen F 1:00pm - 1:50pm F 2:00pm - 5:00pm	Seats (Total: 12) AJC 2121 AVW 1360	 Lab
0102	David Bowen F 1:00pm - 1:50pm F 9:00am - 12:00pm	Seats (Total: 12) AJC 2121 EGR 1110	 Lab

ENEE475 **Power Electronics**

(Perm req)

Prerequisite: Minimum grade of C- in ENEE303; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

This course is suitable for undergraduate and graduate students who want to learn the basic principles of power electronics and its applications. Special emphasis is placed on the interdisciplinary nature of power electronics. Strong and intimate connections between power electronics and circuit theory, electronic circuits, semiconductor devices, electric power, magnetic, motor drives and control are stressed.

0101	Isaak Mayergoyz TuTh 2:00pm - 3:15pm	Seats (Total: 45) KEB 1110	

ENEE488 **Independent Study in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity for independent study projects on advanced electrical and computer engineering topics. These projects typically involve academic investigations of technical themes that are not addressed in the established elective and special topics courses taught by the department on a regular basis. Study plans are tailored to students educational goals but are approved and supervised by faculty.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENEE489J **Topics in Electrophysics; Microwave Devices Design & Testing Laboratory**

(Perm req)

Selected topics of current importance in electrophysics.

Contact department for information to register for this course.

ENEE489Q **Topics in Electrophysics; Quantum Phenomena in Electrical Engineering**

(Perm req)

Selected topics of current importance in electrophysics.

Prerequisites: ENEE380 and completion of all lower-division technical courses in the EE curriculum. Co-requisites: ENEE313 and ENEE381. A fundamental understanding of quantum mechanical principles for electrical engineering and nanotechnology applications is provided. Students will be acquainted with concepts on which modern electronic andoptical devices are based. Topics include: wave phenomena and wave-particle duality, photons and quantum states, entanglement, paradoxes, quantum cryptography, Schrodinger's equation in 1-dimension, bound states, tunneling, s cattering problems, optoelectronic and electronic devices and superconducting Josephson's junctions.

0101	Richard Brewster	Seats (Total: 18)
	TuTh 3:30pm - 4:45pm	EGR 2116

ENEE498K **Topics in Electrical Engineering; Advanced Design Lab on Electric Cars**

(Perm req)

Selected topics of current importance in electrical engineering.

Prerequisite: completion of ENEE303 with a minimum grade of a "C-" and senior standing in Electrical or Computer Engineering. Recommended prerequisites: ENEE476, ENEE475, ENEE408K, or ENME408. An advanced laboratory course, with the purpose of designing a formula type electrical car with the objective of participating in Formula SAE competition. This is a systems level laboratory course, which will eventually use a combination of off-the-shelf components. The major components inside the electric car include electric motor, power inverter, drive circuit, battery, battery management system, sensors and encoders and charger. The course will provide various hands-on experiences involving different experiments on motors, inverters, dc/dc converters, and their overall integration, verification and testing on the environment of a real car. Through this laboratory course, the students will be exposed to the iterative design process forrealizing better system performance.

0101	Xin Zan	Seats (Total: 15)	
	M 11:00am - 11:50am	EGR 3114	
	M 2:30pm - 5:00pm	AVW 1450	Lab

ENEE499 **Senior Projects in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

ENEE majors (09090) only.

Contact department for information to register for this course.

ENEE499H **Senior Projects in Electrical and Computer Engineering; Departmental Honors Thesis**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499L **Senior Projects in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499R **Senior Projects in Electrical and Computer Engineering**

(Perm req)

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE601 **Semiconductor Devices and Technology**

Recommended: ENEE413 and ENEE600. Credit only granted for: ENEE601 or ENEE697. Formerly: ENEE697.

The principles, structures and characteristics of semiconductor devices. Technology and fabrication of semiconductor devices.

0101	Agisilaos Iliadis	Seats (Total: 30)
	MW 12:30pm - 1:45pm	EGR 0135

ENEE612 **Advanced Power Electronics**

Prerequisite: ENEE303, ENEE475, or ENEE476; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENEE719B or ENEE612. Formerly: ENEE719B.

Advanced power electronic converters, techniques to model and control switching circuits, pulse width modulation, resonant switch converters, resonant DC-link converters, series and parallel loaded resonant (SLR, PLR) DC-DC converters, zero voltage switching clamped-voltage (ZVS-CV) converters, ZVS resonant-switch DC-DC converters are explained. In addition, this course deals with small-signal and large-signal modeling and control of switched mode power converters, sliding-mode operation, state space models, generalized state-space averaging, and feedback linearization techniques. Multiple-input converters and their operational principles are explained. Furthermore, practical design procedures for type II and type III compensators with voltage-mode error-amplifier for DC/DC converters are explained.

0101	Alireza Khaligh	Seats (Total: 30)
	MW 11:00am - 12:15pm	KEB 1200

ENEE621 **Estimation and Detection Theory**

Prerequisite: ENEE620; or students who have taken courses with comparable content may contact the department.

Estimation of unknown parameters, Cramer-Rao lower bound; optimum (map) demodulation; filtering, amplitude and angle modulation, comparison with conventional systems; statistical decision theory Bayes, minimax, Neyman/Pearson, Criteria-68 simple and composite hypotheses; application to coherent and incoherent signal detection; M-ary hypotheses; application to uncoded and coded digital communication systems.

0101	Armand Makowski	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	EGR 1104

ENEE627 **Information Theory**

Prerequisite: ENEE620. Credit only granted for: ENEE627 or ENEE721. Formerly: ENEE721.

Information measures and their properties; entropy, relative entropy and mutual information. Information source models. Lossless data compression: the Kraft inequality, Shannon-Fano and Huffman codes. Typical sequences, asymptotic equipartition property, lossy source coding. Discrete memoryless channels: capacity, channel coding theorem. The additive Gaussian channel. Source coding under a fidelity constraint: rate distortion function and rate distortion theorem.

0101	Prakash Narayan	Seats (Total: 35)
	MW 2:00pm - 3:15pm	AJC 2121

ENEE632 **Speech and Audio Processing**

Prerequisite: ENEE620 and ENEE630. Credit only granted for: ENEE739A or ENEE632. Formerly: ENEE739A.

The objective is to apply digital signal processing techniques to speech and music signals. Topics covered include acoustic theory of speech production leading to the source-filter model; acoustic and digital vocal-tract models of speech production; speech analysis-synthesis based on the short-time Fourier transform, linear prediction, and homomorphic representations; extensions to other multiresolution analysis; time-domain models for speech processing; auditory perception and speech perception; waveform and model-based speech coding using scalar and vector quantization; time-scale modification; pitch and formant estimation; application of techniques to music analysis-synthesis.

0101	Carol Espy-Wilson	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	AJC 2132

ENEE640 **Digital CMOS VLSI Design**

Prerequisite: ENEE303 and ENEE350; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Review of MOS transistors: fabrication, layout, characterization; CMOS circuit and logic design: circuit and logic simulation, fully complementary CMOS logic, pseudo-nMOS logic, dynamic CMOS logic, pass-transistor logic, clocking strategies; sub system design: ALUs, multipliers, memories, PLAs; architecture design: datapath, floorplanning, iterative cellular arrays, systolic arrays; VLSI algorithms; chip design and test: full custom design of chips, possible chip fabrication by MOSIS and subsequent chip testing.

Jointly offered with ENEE459C. Credit only granted for ENEE640 or ENEE459C.

0101	Ankur Srivastava	Seats (Total: 40)
	MW 3:30pm - 4:45pm	KEB 1200

ENEE645 **Compilers and Optimization**

Prerequisite: ENEE350 or CMSC216; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENPM808T, ENEE645, or ENPM617.

The compilation, linking and loading process. Using lexical analyzers and parsers. Intermediate forms. Global, stack and heap objects, and their addressing modes. Stack implementation. Control flow analysis and optimization. Dataflow analysis and optimization including Static, single assignment. Alias analysis.

0101	Rajeev Barua	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	EGR 0135

ENEE661 **Nonlinear Control Systems**

Prerequisite: ENEE660; and (MATH410 or MATH411; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

State space methods of stability analysis including second order systems and the phase plane, linearization and stability in the small, stability in the large and Lyapunov's second method. Frequency domain methods including the describing function. Popov's method and functional analytic methods. Introduction to Volterra series representations of nonlinear systems. Applications to conrol system design.

0101	Perinkulam Krishnaprasad	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	CSI 3118

ENEE664 **Optimal Control**

Prerequisite: ENEE660 and MATH410; or students who have taken courses with comparable content may contact the department; or permission of instructor. Corequisite: MATH411; or permission of instructor.

General optimization and control problems. Conditions of optimality for unconstrained and constrained optimization problems; sensitivity; duality. Introduction to linear and nonlinear programming methods. Dynamic optimization. Discrete time maximum principle and applications. Pontryagin maximum principle in continuous time. Dynamic programming. Feedback realization of optimal control.

0101	Kaiqing Zhang	Seats (Total: 30)
	MW 12:30pm - 1:45pm	EGR 1104

ENEE681 **Electromagnetic Waves and Applications**

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Review of Maxwell's equations: potentials, EM energy and momentum, EM plane waves. Properties of waves: dispersion, group velocity, diffraction, the ray optic limit. Waves in media: left-handed media, anisotropic media, wave guides, fibers, cavities. Radiation: antennas, Cherenkov radiation, radiation by accelerated charges, scattering. Additional topics: Wave chaos, Special Relativity.

0101	Thomas Antonsen	Seats (Total: 30)
	TuTh 9:30am - 10:45am	EGR 2154

ENEE692 **Introduction to Photonics**

Prerequisite: ENEE380 and ENEE381; or students who have taken courses with comparable content may contact the department.

Introduction to photonic concepts and applications. In particular, high quality factor optical resonators, photonic crystals, microresonators, statistical and photon optics, spontaneous and stimulated emission, semiconductor lasers and detectors, modulators and optical switches are discussed. Finally, the concept of photons and the quantum states of light are presented.

0101	Yanne Chembo	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	PHY 4221

ENEE698P **Graduate Seminar; First Year Research Seminar**

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

Alternating face-to-face/ online class meeting. Please see instructor for details.

0101	Behtash Babadi	Seats (Total: 75)
	W 5:00pm - 6:15pm	IRB 0318

ENEE698Q **Graduate Seminar; Colloquium Series**

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	Sennur Ulukus	Seats (Total: 80)
	F 3:30pm - 4:30pm	KEB 1110

ENEE699 **Independent Studies in Electrical Engineering**

(Perm req)

Supervised individual study or project, or supervised group study or project, at an advanced level, in electrical engineering.

Contact department for information to register for this course.

ENEE719D **Advanced Topics in Microelectronics**

0101	Sahil Shah	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	EGR 2154

ENEE739Z **Advanced Topics in Signal Processing**

0101	Christopher Metzler	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 2107

ENEE759N **Advanced Topics in Computer Engineering**

Topics, as announced every semester, from the field of computer engineering and its applications.

Cross-listed with CMSC838C. Credit only granted for CMSC838C, CMSC498F or ENEE759N. AR, VR, and MR, collectively referred to as XR, are becoming ubiquitou for human-computer interaction with limitless applications and potentialuse. This course examines advances on real-time multi-modal X systems in which the user is 'immersed' in and interacts with a simulated 3D environment. The topics will include display, modeling, 3 graphics, haptics, audio, locomotion, animation, applications, immersionand presence.

0101	Ming Lin	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	IRB 2207

ENEE759Y **Advanced Topics in Computer Engineering; Software Security via Program Analysis**

Topics, as announced every semester, from the field of computer engineering and its applications.

Prerequisites: ENEE 350; or students who have taken courses with comparable content may contact the ECE Department.

0101	Yonghwi Kwon	Seats (Total: 25)
	MW 12:30pm - 1:45pm	AJC 2121

ENEE789A **Advanced Topics in Electrophysics; Magnetism and Spintronics**

Topics selected, as announced every semester, from the field of electrophysics and its applications.

Prerequisites: Completion of ENEE313 with a "C-" or better; or students who have taken courses with comparable content may contact the department. This course covers the fundamental physics of magnetism, magnetic materials, and spintronic devices. It aims at providing an understanding of fundamental principles, on different length scales, that underlie a variety of magnetic materials and devices. State-of-the-art spintronic devices in industry and novel concepts of spintronics in laboratories will be discussed.

0101	Cheng Gong	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	EGR 3106

ENEE789M **Advanced Topics in Electrophysics; Quantum Technology**

Topics selected, as announced every semester, from the field of electrophysics and its applications.

Prerequisite: A good grounding in electromagnetism and quantum mechanics is necessary; familiarity with density matrices and master equations will be helpful. Crosslisted with PHYS720. Credit only granted for PHYS720 or ENEE789M. Physical principles behind emerging quantum technologies, from quantum-limited amplifiers to atomic simulators. Examination of current and emerging platforms for quantum technologies, including neutral atom, ion trap, superconducting circuit, photonic, and spin-based approaches. Focus on hurdles for implementing quantum devices for new applications.

0101	Mohammad Hafezi	Seats (Total: 50)
	MW 3:30pm - 4:45pm	PHY 1204

ENEE799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ENEE889 **Teaching Workshop**

(Perm req)

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE898 **Pre-Candidacy Research**

(Perm req)

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENES Engineering Science Spring 2024

ENES100 **Introduction to Engineering Design**

(Perm req)

Prerequisite: Must have math eligibility for MATH140 or higher.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Credit granted for ENES100 or ENES100A. Non-engineering students can enroll for ENES100A and must request permis sion to do so at eng.umd.edu/keystone/courses.

0101	Paul Anderson MW 10:00am - 11:50am	Seats (Total: 32) JMP 1120
0102	Brian Danielak MW 10:00am - 11:50am	Seats (Total: 32) JMP 1116
0201	John Cumings TuTh 10:00am - 11:50am	Seats (Total: 32) JMP 1120
0202	Michael Galczynski TuTh 10:00am - 11:50am	Seats (Total: 32) JMP 1116
0301	David Kriesberg MW 12:00pm - 1:50pm	Seats (Total: 25) JMP 1120
0302	Michael Galczynski MW 12:00pm - 1:50pm	Seats (Total: 31) JMP 1116
0401	Aris Cleanthous TuTh 12:00pm - 1:50pm	Seats (Total: 22) JMP 1120
0402	Brian Danielak TuTh 12:00pm - 1:50pm	Seats (Total: 22) JMP 1116
0501	Catherine Hamel MW 2:00pm - 3:50pm	Seats (Total: 32) JMP 1120
0601	Danielle Barker TuTh 2:00pm - 3:50pm	Seats (Total: 10) JMP 1120
0602	Michael Galczynski TuTh 2:00pm - 3:50pm	Seats (Total: 32) JMP 1116
0701	Joshua Cocker MW 4:00pm - 5:50pm	Seats (Total: 32) JMP 1120

ENES100A **Introduction to Engineering Design**

(Perm req)

Prerequisite: Must have math eligibility for MATH140 or higher.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Restricted to non-engineering students. Credit granted for ENES100 or ENES100A.

0101	Paul Anderson MW 10:00am - 11:50am	Seats (Total: 3) JMP 1120
0102	Brian Danielak MW 10:00am - 11:50am	Seats (Total: 3) JMP 1116
0201	John Cumings TuTh 10:00am - 11:50am	Seats (Total: 3) JMP 1120
0202	Michael Galczynski TuTh 10:00am - 11:50am	Seats (Total: 3) JMP 1116
0301	David Kriesberg MW 12:00pm - 1:50pm	Seats (Total: 10) JMP 1120
0302	Michael Galczynski MW 12:00pm - 1:50pm	Seats (Total: 4) JMP 1116
0401	Aris Cleanthous TuTh 12:00pm - 1:50pm	Seats (Total: 13) JMP 1120
0402	Brian Danielak TuTh 12:00pm - 1:50pm	Seats (Total: 13) JMP 1116
0501	Catherine Hamel MW 2:00pm - 3:50pm	Seats (Total: 3) JMP 1120
0601	Danielle Barker TuTh 2:00pm - 3:50pm	Seats (Total: 25) JMP 1120
0602	Michael Galczynski TuTh 2:00pm - 3:50pm	Seats (Total: 3) JMP 1116
0701	Joshua Cocker MW 4:00pm - 5:50pm	Seats (Total: 3) JMP 1120

ENES102 **Mechanics I**

(Perm req)

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

Students must pay a $30 course materials fee.

0201	Thomas Beigel MW 9:00am - 9:50am Class time/details on ELMs F 9:00am - 10:50am	Seats (Total: 56) JMP 3201 ONLINE PLS 1130	Discussion
0301	Mary Bowden MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 56) PLS 1130 CCC 1100	Discussion
0401	Robert Bonenberger MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 56) EGR 1108 EGR 0108	Discussion
0501	Kevin Calabro MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 56) IRB 1116 ESJ 0215	Discussion
0701	Catherine Hamel MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	Seats (Total: 56) EGR 0108 EGR 1108	Discussion
0801	Robert Bonenberger MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 56) EGR 0108 EGR 0108	Discussion
0902	Patrick McAvoy MW 4:00pm - 4:50pm F 3:00pm - 4:50pm	Seats (Total: 52) ATL 2428 EGR 0108	Discussion

ENES108 **Achieving College Success: First Year Transition**

(Perm req)

An exploration of the skills and habits needed to successfully complete the first year of study for Science, Technology, Engineering, and Mathematics (STEM) majors. This course is an extension of the college success seminars taught during the Summer Bridge Program.

Restricted to LSAMP Bridge students only.

0101	Jeanea Dunbar M 5:30pm - 6:30pm	Seats (Total: 25) EGR 1102
0102	Jeanea Dunbar M 6:30pm - 7:30pm	Seats (Total: 25) EGR 1102

ENES114 **Virtus Seminar II**

Prerequisite: ENES113. Restriction: Students must be participants in the Virtus Living and Learning Community.

Focus on personal and professional development with engineering with a strong emphasis on career development. Learn to employ strategies and skills for academic and professional success.

0101	Elizaveta Solovey, Sam Murillo, Paige Smith W 4:00pm - 5:15pm	Seats (Total: 40) ATL 1114
0201	Elizaveta Solovey, Paige Smith, Sam Murillo Contact instructor or department for details.	Seats (Total: 20)

ENES116 **FLEXUS Living and Learning Community Seminar II**

Prerequisite: ENES115.

The seminar focuses on personal and professional development by enhancing technical ability, understanding educational options through minors and student projects in engineering, identifying and employing strategies and skills for academic and professional success, and developing career commitment through networking and mentoring. Students develop professional portfolios in preparation for a future internship or job.

0101	Veronica Perrigan, Sam Murillo, Paige Smith W 4:00pm - 5:15pm	Seats (Total: 45) CSI 2107
0102	Veronica Perrigan, Sam Murillo, Paige Smith Contact instructor or department for details.	Seats (Total: 10)

ENES138 **Equity and Inclusion in Engineering Design**

Through deliberate reflections on the past and current patterns of exclusion and inclusion within engineering, you will develop skills for engaging in equitable and inclusive processes and practices that can transform your collaborations and approach to engineering and the design process. This course engages students, from multiple social identity groups, in facilitated dialogue that focus on the tensions, similarities, and differences of experience that exist within, between, and/or across groups.

Restriction: Must be a student in the A. James Clark School of Engineering or in the Global Engineering Leadership minor. Credit only granted for: ENES338K, CHSE338K, or ENES138. Formerly: ENES338K. Through deliberate reflections on the past and current patterns of exclusion and inclusion within engineering, you will develop skills for engaging in equitable and inclusive processes and practices that can transform your collaborations and approach to engineering and the design process. This course engages students, from multiple social identity groups, in facilitated dialogue that focus on the tensions, similarities, and differences of experience that exist within, between, and/or across groups.

0101	Le-Marie Thompson, Edward Eisenstein, Suzanne Ashour-Bailey, Matthew Scassero **Meets January 24, 2024 - March 13, 2024** Tu 4:00pm - 6:00pm	Seats (Total: 32) Location: TBA
0102	LaShanna Young, Timothy Farrell, Alexis Herbert, Adam Klager **Meets March 27, 2024 - May 8, 2024** W 4:00pm - 6:00pm	Seats (Total: 32) Location: TBA

ENES138U **Equity and Inclusion in Engineering Design; US Identity in a Global Context**

Through deliberate reflections on the past and current patterns of exclusion and inclusion within engineering, you will develop skills for engaging in equitable and inclusive processes and practices that can transform your collaborations and approach to engineering and the design process. This course engages students, from multiple social identity groups, in facilitated dialogue that focus on the tensions, similarities, and differences of experience that exist within, between, and/or across groups.

Contact department for information to register for this course.

ENES140 **Discovering New Ventures**

Additional information: This course may count as an elective for a student at the University of Maryland, depending on the student's specific degree program. It cannot be counted towards the requirements for the Smith School of Business Entrepreneurship Fellow Program.

Students explore dynamic company startup topics by working in teams to design a new venture. This multi-disciplinary course helps students to learn the basic business, strategy, and leadership skills needed to launch new ventures. Topics include learning how to assess the feasibility of a startup venture, as well as how to apply best practices for planning, launching, and managing new companies. Students discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunities, assess the skills and talents of successful entrepreneurs, and learn models that help them navigate uncertainty.

All questions regarding this course should be directed to mtecheducation@umd.edu.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0301	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0401	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0501	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0601	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0701	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0801	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0901	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
1001	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

ENES152 **Transfer LEAD Seminar II**

(Perm req)

Prerequisite: ENES150. Restriction: Must be an eligible external transfer student in the A. James Clark School of Engineering; and permission of instructor.

This is a continuation of ENES150: Transfer LEAD Seminar I. Transfer LEAD is a program for Engineering transfer students with four main outcomes: Learn, Educate, Adapt, Direct. In this course, students will apply the concepts they learned in ENES150 in a practical setting. Students will focus on engagement, communication, and peer education.

Students must complete ENES150 prior to enrollment and will be granted permission based on completion of ENES150. Students interested in ENES152 should contact the instructor via email at shayes@umd.edu to request permission for the course.

0101	Shannon Buenaflor	Seats (Total: 10)	
	Class time/details on ELMs	ONLINE	

ENES190H **Introduction to Design and Quality**

Restriction: Must be in the Quest program. Cross-listed with: BMGT190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Cross-listed with BMGT190H. Credit granted for BMGT190H or ENES190H.

0101	Christopher Troilo, Benjamin Huffman	Seats (Total: 45)	
	TuTh 12:30pm - 1:45pm	ESJ 2212	
	Tu 6:00pm - 7:50pm	ESJ 2101	Discussion

ENES192 **Engineering For Us All**

Prerequisite: MATH107. Additional information: Recommended for non-engineering majors.

Students are challenged to uncover hidden valuable connections among a variety of disciplines, while creatively seeking and solving problems as a team. Students learn and practice skills for how groups function and identify innovation while addressing the tensions between our inherent drives to seek and solve, to share, and to sell.

0101	Kevin Calabro	Seats (Total: 20)	
	MW 2:00pm - 3:50pm	JMP 1116	

ENES200 **Technology and Consequences: Engineering, Ethics and Humanity**

Credit only granted for: ENEE200 or ENES200.

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

0101	Christine Alexander TuTh 9:30am - 10:45am F 9:00am - 10:15am	Seats (Total: 16) CCC 1205 ATL 1106	 Lab
0102	Christine Alexander TuTh 9:30am - 10:45am F 10:30am - 11:45am	Seats (Total: 16) CCC 1205 ATL 1106	 Lab
0103	Christine Alexander TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 16) CCC 1205 EGR 3102	 Lab
0104	Christine Alexander TuTh 9:30am - 10:45am F 1:30pm - 2:45pm	Seats (Total: 16) CCC 1205 CHE 2116	 Lab
0105	Christine Alexander TuTh 9:30am - 10:45am F 3:00pm - 4:15pm	Seats (Total: 16) CCC 1205 EGR 3111	 Lab

ENES210 **Entrepreneurial Opportunity Analysis and Decision-Making in 21st Century Technology Ventures**

Credit only granted for: ENES210 or ENES461.

This multi-disciplinary course helps students learn the principles of entrepreneurial opportunity analysis and decision-making in an increasingly dynamic and technically-inclined society. Emphasis is placed on how aspiring technology entrepreneurs can develop their entrepreneurial perspectives to develop winning entrepreneurial plans for their future ventures.

All questions regarding this course should bedirected to mtecheducation@umd.edu.

0101	James Green, Michael Pratt Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 120) ONLINE ESJ 2204	

0102	James Green, Michael Pratt Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 120) ONLINE ESJ 2204
0103	Michael Pratt, James Green Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 120) ONLINE ESJ 2204
0104	James Green, Michael Pratt Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 155) ONLINE HJP 0226
0105	James Green Class time/details on ELMs W 9:00am - 9:50am	Seats (Total: 120) ONLINE ESJ 2204
0106	James Green Class time/details on ELMs W 10:00am - 10:50am	Seats (Total: 120) ONLINE ESJ 2204
0107	James Green Class time/details on ELMs W 1:00pm - 1:50pm	Seats (Total: 120) ONLINE ESJ 2204
0108	James Green Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 155) ONLINE HJP 0226

ENES214 **Virtus Seminar IV**

(Perm req)

Prerequisite: Students must have completed ENES213. Restriction: Students must be participants in the Virtus Living and Learning Community.

Students continue to develop their leadership and mentoring skills, participate in networking opportunities and explore their interest in special engineering topics.

0101	Connor Harrigan, Samantha Sabihi W 5:00pm - 6:30pm	Seats (Total: 20) EGR 1108

ENES216 **FLEXUS Living and Learning Community Seminar IV**

Prerequisite: ENES115, ENES116, and ENES215. Restriction: Restricted to second year FLEXUS participants.

The seminar focuses on gender diversity and its cross-sections with culture. Students continue to enhance their leadership and mentoring skills, participate in networking opportunities with women in leadership roles and careers in engineering, and engage in opportunities for outreach and service-learning. Students will also complete a culminating semester project.

0101	Samantha Sabihi, Connor Harrigan W 5:00pm - 6:30pm	Seats (Total: 35) EGR 1108	

ENES220 **Mechanics II**

(Perm req)

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must not be in Engineering: Electrical program.

Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

Students must pay a $35 course materials fee.

0101	Bongtae Han MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 50) ATL 1113 EGR 1108	 Discussion
0103	Thomas Beigel MW 2:00pm - 2:50pm Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 50) PHY 4221 ONLINE ANS 0408	 Discussion
0105	Teng Li MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 50) CSI 2117 PHY 1201	 Discussion
0106	Thomas Beigel MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 12:50pm	Seats (Total: 50) EGR 0108 ONLINE CCC 1111	 Discussion

ENES221 **Dynamics**

(Perm req)

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

0102	Patrick McAvoy	Seats (Total: 50)	
	MW 10:00am - 10:50am	EGR 0108	
	F 10:00am - 11:50am	EGR 1108	Discussion
0104	Patrick McAvoy	Seats (Total: 50)	
	MW 1:00pm - 1:50pm	PHY 1201	
	F 1:00pm - 2:50pm	PHY 1201	Discussion

ENES232 **Thermodynamics**

Prerequisite: PHYS261 and PHYS260. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: BIOE232, CHBE301, ENCH300, ENES232, ENME320, or ENME232. Formerly: ENME232 and ENME320.

Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

For all sections of ENES232 there will be common midterm examinations on periodic Thursdays from 7:00-8:15pm.

0101	Catherine Hamel	Seats (Total: 55)	
	MW 9:00am - 9:50am	EGR 0108	
	F 9:00am - 10:50am	SPH 1303	Discussion
	Th 7:00pm - 8:15pm	Location: TBA	Discussion
0102	Jarred Young	Seats (Total: 50)	
	MW 12:00pm - 12:50pm	PHY 1201	
	F 12:00pm - 1:50pm	CCC 1205	Discussion
	Th 7:00pm - 8:15pm	Location: TBA	Discussion
0201	Joshua Cocker	Seats (Total: 50)	
	MW 1:00pm - 1:50pm	PHY 1204	
	F 1:00pm - 2:50pm	CSI 1122	Discussion
	Th 7:00pm - 8:15pm	Location: TBA	Discussion
0301	Jarred Young	Seats (Total: 55)	
	MW 3:00pm - 3:50pm	PLS 1140	
	F 2:00pm - 3:50pm	CCC 1205	Discussion
	Th 7:00pm - 8:15pm	Location: TBA	Discussion

0302	Christopher Cadou	Seats (Total: 50)	
	TuTh 2:00pm - 2:50pm F 2:00pm - 3:50pm Th 7:00pm - 8:15pm	CHE 2108 PHY 4221 Location: TBA	 Discussion Discussion
0701	Ray Sedwick	Seats (Total: 49)	
	TuTh 11:00am - 11:50am F 11:00am - 12:50pm Th 7:00pm - 8:15pm	CHE 2118 CCC 1100 Location: TBA	 Discussion Discussion

ENES240 **Ethical, Policy and Social Implications of Science and Technology**

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: PLCY240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	HJP 2242

ENES304 **RISE Seminar**

Restriction: Must be in the Engineering RISE Leadership Program; and permission of ENGR-A. James Clark School of Engineering.

This is the first semester of a two semester sequence taken by RISE students in their first semester in the program. T he purpose of ENES 304 is for RISE students to learn about leadership, acquire leadership skills, and understand how to integrate leadership theories and concepts in engineering practice. There will be a mix of formal lectures by course faculty and lectures by distinguished speakers who can provide their own experience of what leadership means and how it is acquired. Students will explore their own leadership philosophy and leadership capacities in the context of group practice. Students will make meaning of general leadership theories and concepts and understand how to apply them to engineering industry. Students will also gain understanding of leadership through the stories shared by distinguished speakers with industrial, governmental and academic experience.

Contact department for information to register for this course.

ENES305 **RISE Leadership Seminar**

(Perm req)

Prerequisite: Permission of ENGR-A. James Clark School of Engineering; and ENES304.

This is the second semester of a two semester sequence taken by RISE students in their final semester in the program. The purpose of ENES 305 is for RISE students to learn about leadership, acquire leadership skills, and understand how to integrate leadership theories and concepts in engineering practice. There will be a mix of formal lectures by course faculty and lectures by distinguished speakers who can provide their own experience of what leadership means and how it is acquired. Students will explore their own leadership philosophy and leadership capacities in the context of group practice. Students will make meaning of general leadership theories and concepts and understand how to apply them to engineering industry. Students will also gain understanding of leadership through the stories shared by distinguished speakers with industrial, governmental and academic experience.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Ken Kiger, Darren Pierre, William Fourney	Seats (Total: 38)
	Tu 5:00pm - 5:50pm Class time/details on ELMs	Location: TBA ONLINE

ENES317 **Introduction to Leadership in Engineering, Science, and Technology**

Restriction: Must be in the Minor in Global Engineering Leadership(#EN09). Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop a comprehensive overview and introduction to leadership and organizational development. Students will reflect on their own leadership experiences, develop a strong foundational knowledge of leadership theory, and advance their capacities in effectively leading teams. Students will connect leadership theory to practice by engaging in case study analysis and critique leadership practices enacted within engineering and technology settings. Students will complete self-assessments to better understand their own leadership strengths and refine their approaches to leadership by incorporating theories covered in this course.

0101	Darren Pierre	Seats (Total: 45)
	M 5:00pm - 7:30pm	IRB 1207

ENES338U **Navigating Social Identity Difference through Intergroup Dialogue; US Identity in a Global Context**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Contact department for information to register for this course.

ENES390H **Designing Innovative Systems**

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: BMGT390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

0101	David Ashley M 5:00pm - 7:40pm	Seats (Total: 45) TWS 1310

ENES397 **Mentoring Multidisciplinary Teams**

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

0101	Emily Marks Tu 5:00pm - 7:40pm	Seats (Total: 9) ESJ 2101

ENES401 **Entrepreneurial Design Realization**

(Perm req)

Restriction: Must have senior standing and permission of instructor. Cross-listed with: ENME401. Credit only granted for: ENME401, ENME489B or ENES401. Formerly: ENME489B.

The vision for this course, and an aspect that makes it unique, is to expose students to the opportunities and challenges of bringing a product design to reality (entrepreneurship). The emphasis is on environmentally and socially sustainable projects. The end-product of this course will be full-scale implementations or complete design "packages" that can be taken to potential stakeholders.

0102	Vincent Nguyen F 2:00pm - 3:15pm W 2:00pm - 3:15pm	Seats (Total: 20) EGL 0105 EGR 3111

ENES424 **Engineering Leadership Capstone: Inclusive Leadership in Addressing Organizational & Societal Challenges**

Prerequisite: ENES472 and ENES317. Restriction: Must be in the Global Engineering Leadership minor (#EN09).

The Minor in Global Engineering Leadership is designed to bring together one's understanding of leadership, organizations, culture, and global studies and apply this synthesized learning to a capstone project. The project will provide real-world application of global leadership principles to address an organizational or societal need. Students will utilize an inclusive leadership and global mindset to propose a big idea which brings about a positive organizational or societal change.

Contact department for information to register for this course.

ENES428 **Engineering Research for Exchange Students**

(Perm req)

Directed research within the Clark School of Engineering for international exchange students.

Contact department for information to register for this course.

ENES440 **Science, Technology, Ethics, and Policy: Minor Program Capstone**

Prerequisite: ENES240 and 2 courses from the STEP minor elective list. Restriction: Must be in the Science, Technology, Ethics, and Policy minor. Additional information: This is the culminating course the STEP minor program.

Capstone research seminar for students in the Science, Technology, Ethics, and Policy Minor program.

0101	M Sauter TuTh 11:00am - 12:15pm Contact instructor or department for details.	Seats (Total: 31) ESJ B0322
0201	Timothy Reedy TuTh 11:00am - 12:15pm	Seats (Total: 15) ESJ B0320

ENES458B **Topics in International Engineering; Engineers Without Borders: Leadership Seminar-Brazil**

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458F **Topics in International Engineering; Topics in International Engineering: A Spanish Context**

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES458I **Topics in International Engineering; Engineers Without Borders Project Implementation**

A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

Contact department for information to register for this course.

ENES461 **Advanced Entrepreneurial Opportunity Analysis in Technology Ventures**

Credit only granted for: ENES210 or ENES461.

Explores the factors that influence entrepreneurial opportunity analysis in technology-based ventures. Uses a cognitive theoretical framework to examine the integration of motivation, emotions and information processing modes to make complex entrepreneurial decisions in technology venture environments.

Credit only granted for ENES210 or ENES461.

0101	James Green Class time/details on ELMs	Seats (Total: 325) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 325) ONLINE

ENES466 **Leading and Financing the Technology Venture**

(Perm req)

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Credit only granted for: ENES466, BMGT365, SMLP471 or HLMN471. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Focuses on the challenges of leading and financing new technology ventures. Leadership topics include team selection and formation, aligning rewards with relative contributions of team members, and how early decisions can enable or prevent founders from achieving results that align with their individual motivations for becoming an entrepreneur. Essential tools and methods for building a strong financial foundation for a new technology venture are examined. Includes important accounting principles as well as methods for keeping financial control of the technology venture. Insights are shared on navigating the multitude of financial barriers that may block your entrepreneurial success, as well as how to grow the technology venture from concept through launch.

0101	Michael Pratt Class time/details on ELMs	Seats (Total: 33) ONLINE

ENES472 **Leading Global Teams and Engaging Across Cultures in Business, Engineering, and Technology**

Restriction: Sophomore standing or higher; must be a minor in Global Engineering Leadership (#EN09), Global Poverty (#AG06), Global Terrorism Studies (#BS07), or International Development and Conflict Management (#BS02). Credit only granted for: ENES472, SLLC471, or SLLC473. Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop global leadership capacities and an understanding of the cultural aspects pertaining to industry and international business. In a globalized world, the ability to work, lead and communicate in culturally diverse settings has become a core component to leadership. Through real-world examples, research, and simulations, students will increase their self-awareness and understanding of culture and how culture influences attitudes, behaviors, and practices at the individual, organizational, or societal levels. Students will develop the skills necessary to navigate, negotiate, and lead cross-cultural engagements and teams. The course content is relevant and applicable to anyone interested in developing cross-cultural leadership competencies and cultivating a global mindset.

0101	Darren Pierre W 5:00pm - 6:30pm Class time/details on ELMs	Seats (Total: 45) IRB 1207 ONLINE

ENES475 **Leadership in Times of Crisis: Pandemics, Disasters, and Humanitarian Crises**

Restriction: Must have earned a minimum of 60 credits. Credit only granted for: ENES275 or ENES475.

Students are provided with immersive opportunities to learn from industry professionals about crisis prevention and response by examining leadership throughout the crisis cycle: from identification, prevention, and preparation, to response, recovery, and rebuilding. The course brings together the study and practice of leadership with promising practices in disaster preparedness and data informed decision-making. This course will examine how leadership has been enacted to help local, national, and global communities navigate through pandemics, disasters, and other humanitarian crises. Students will develop capacities for informed leadership in times of crisis and develop an understanding for applying these skills in a variety of settings.

0101	Lena Crain Th 5:00pm - 7:30pm	Seats (Total: 40) ONLINE

ENES481 **Engineering Honors Seminar II**

Restriction: Must be in College of Engineering Honors; and junior standing or higher.

Introduction to engineering creativity and innovation in engineering. Application of methods of creativity to topics in communication, conducting research, and leadership.

0101	Wesley Lawson F 10:00am - 10:50am	Seats (Total: 30) MTH 0302
0201	Wesley Lawson F 1:00pm - 1:50pm	Seats (Total: 30) EGR 2116

ENES489A **Special Topics in Engineering; Applied Quantitative Analysis**

Special topics in engineering.

Restricted to QUEST students. Cross-listed with ENES498A. Credit granted for BMGT438A or ENES489A.

0101	Maria Bardossy MW 2:00pm - 3:15pm	Seats (Total: 55) TWS 1310

ENES489P **Special Topics in Engineering; Hands-on Systems Engineering Projects**

Special topics in engineering.

This hands-on design projects course will expose senior-level undergraduates and graduate students from all areas of engineering to to exciting career opportunities in the systems engineering field. Students will be introduced to the technical aspects of systems engineering practice through team-based project development and a systematic step-by-step procedure for product development that includes defining operations concepts, requirements gathering and organization, synthesis of models of system behavior and system structure, functional allocationto create system design alternatives, formal assessment of design alternatives through tradeoff analysis, and established approaches to testing and validation/verification. The students will be introduced to modern methods in Model-Based Systems Engineering, and industrial strength tools and environments for complex systems synthesis. Team projects may address problems from a wide variety of disciplines or cross-disciplines.

0101	John Baras Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 26) EGR 0108 AVW 2446	 Lab
0201	John Baras Th 11:00am - 12:15pm Th 5:00pm - 6:15pm	Seats (Total: 26) EGR 0108 AVW 2446	 Lab

ENES490H **QUEST Capstone Professional Practicum**

Prerequisite: ENES390 or BMGT390. Cross-listed with: BMGT490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to QUEST program students. Cross-listed with BMGT490H. Credit granted for BMGT490H or ENES490H.

0101	Maria Bardossy, David Ashley W 5:00pm - 7:40pm	Seats (Total: 46) TWS 1310	

ENES601 **Future Faculty Program Seminar I**

(Perm req)

Restriction: Must be in the Clark School Future Faculty Program.

Introduction to and development of skills necessary to obtain and succeed in a university faculty position. Emphasis on technical writing and effective presentations. Discussion of research diversification, networking, ethics and professionalism.

0101	Gregg Duncan	Seats (Total: 25)
	Th 3:30pm - 4:45pm	MTH 0403

ENES603 **Future Faculty Program Seminar III**

(Perm req)

Restriction: Must be in the Clark School Future Faculty Program.

Developing a successful faculty research program. Establishing and maintaining a research group. Finding funding opportunities and writing grant proposals. Mentoring graduate students. Faculty position application process. Preparing research and teaching statements.

0101	Thomas Murphy	Seats (Total: 25)
	Th 3:30pm - 4:30pm	Location: TBA

ENES604 **Future Faculty Program Teaching Practicum**

Prerequisite: ENES602. Restriction: Must be a graduate student in the Clark School Future Faculty Program; and students for whom English is not the native language must pass the Maryland English Institute ITA Evaluation prior to enrolling in this course.

Graduate students will co-teach a course under supervision of a faculty mentor. Graudate students will be involved in all aspects of the course including development of syllabus, presenting lectures, writing and grading examiniations, and evaluating the students in the course.

Restricted to the students in the Future Faculty program.

0101	Min Wu	Seats (Total: 25)
	Contact instructor or department for details.	

ENES660 **Fundamentals of Product Management**

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Provides a comprehensive survey of product management and its growing role in producing technology-driven products that customers love. Guides students through the product lifecycle and market lifecycle, diving into the competencies needed at each stage. Topics include startup and corporate strategy, product strategy, vision setting and evangelism, development lifecycle approaches based on customer involvement and product stage, the various types of innovation at each stage of the lifecycle, and how the product manager leads the team through it all. Learn the basics of customer discovery, product discovery, product delivery, and the core-context model for managing products through maturity.

PLM1	Damien Peters	Seats (Total: 50)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES663 **Strategies for Managing Innovation**

Restriction: Must be in the Product Management or the Technology Entrepreneurship and Corporate Innovation Master of Professional Studies programs; or permission of Maryland Technology Enterprise Institute.

Emphasizes how innovative leaders can use strategic management of innovation and technology to enhance firm performance. It helps students to understand the process of technological change; the ways that firms come up with innovations; the strategies that firms use to benefit from innovation; and the process of formulating technology strategy. It provides frameworks for analyzing key aspects of these industries and teaches students how to apply these frameworks.

PLM1	Sharon Flank	Seats (Total: 50)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES665 **Innovative Thinking**

Restriction: Must be in the Product Management or the Technology Entrepreneurship and Corporate Innovation Master of Professional Studies programs; or permission of Maryland Technology Enterprise Institute.

Introduces students to new and powerful tools to boost their creative problem solving skills. Participants re-discover their communication and teaming skills. Students unlock their creativity potential, and explore win-win approaches to define and solve problems of different kinds. Students are also introduced to topics related to intellectual property.

PLM1	Frankie Abralind	Seats (Total: 50)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES666 **Creative Design, Prototyping, and Testing**

Restriction: Must be in the Technology Entrepreneurship and Corporate Innovation Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Transition from creative, innovative, design thinking methods to prototyping and concept testing of products and services. Learn how to translate ideas into marketable offerings to create real value for customers and the new venture. Emphasis is placed on an integrated and interdisciplinary approach to engineering design, concurrent engineering, design for manufacturing, industrial design, and the business of new product development. Topics include design methods, modeling and simulation, material and manufacturing process selection, platform and modular design, mass customization, planning and scheduling, and business issues, teamwork, group dynamics, creativity, and innovation.

PLM1	James Green	Seats (Total: 25)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship and Corporate Innovation may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES673 Financing the Product Life Cycle

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Provides the essential tools and skills to build a strong financial foundation for designing, developing, and managing new products within established companies and organizations. Examines accounting principles as well as methods for managing the financials of the product. Discusses navigating the multitude of financial barriers that may block success, as well as how to raise the right amount of capital at the right time from the right source, with an emphasis on internal company financing.

PLM1	Michael Pratt	Seats (Total: 50)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES674 Managing Product Development and Operations

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Explores the evolution of modern management methods for operations and product development. Evaluates production and operation methods from inception to factory-based models of productivity, through the quality and lean movements, to the explosion of productivity with modern approaches. Focuses on how to effectively run large-scale agile teams with agile engineering at its core.

PLM1	Michael O'Connor	Seats (Total: 50)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENES675 **Leadership in Times of Crisis: Pandemics, Disasters, and Humanitarian Crises**

Jointly offered with: ENES475.

Students are provided with immersive opportunities to learn from industry professionals about crisis prevention and response by examining leadership throughout the crisis cycle: from identification, prevention, and preparation, to response, recovery, and rebuilding. The course brings together the study and practice of leadership with promising practices in disaster preparedness and data informed decision-making. This course will examine how leadership has been enacted to help local, national, and global communities navigate through pandemics, disasters, and other humanitarian crises. Students will develop capacities for informed leadership in times of crisis and develop an understanding for applying these skills in a variety of settings.

0101	Lena Crain	Seats (Total: 40)
	Th 5:00pm - 7:30pm	ONLINE

ENES680 **Building and Leading Innovative Organizations**

Restriction: Must be in the Product Management Master of Professional Studies program; or permission of Maryland Technology Enterprise Institute.

Focuses on building a product enterprise through lean product portfolio management. Defines the conceptual groundwork that enables achieving the vision of a customer-centric value creation business model centered around lean principles. Explains the details of building a scaled product enterprise and explores alignment of organizational support functions with a product framework that lays the pathway for a sustainable value maximizing enterprise at scale.

PLM1	Tushar Rathod	Seats (Total: 50)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll. Golden ID students are not eligible for this section.	

ENFP Engineering, Fire Protection Spring 2024

ENFP101 **Introduction to Fire Protection Engineering**

(Perm req)

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP108 or ENFP101. Formerly: ENFP108.

This course will introduce students to the impact of fire on people, property and the environment and methods to mitigate the threat of fire. Student teams will apply the principles of fire behavior and fire safety systems covered in the first half of the course to design, build and test a fire safe, small-scale apartment. A final experiment will be conducted to provide an assessment of the complete designs of each team.

0101	Paul Anderson	Seats (Total: 15)	
	M 12:00pm - 12:50pm	JMP 1202	

ENFP201 **Numerical Methods with MatLab**

Prerequisite: MATH141. Restriction: Must be in Engineering: Fire Protection program.

A broad range of numerical methods are illustrated and applications related to engineering problems are implemented using Mat Lab thus providing a working knowledge of this computational tool. The topics covered in the course include: finding roots of equations with bracketing and open methods; solving linear systems of equations with matrices, Gauss elimination, LU decomposition, and iterative methods; linear regression, polynomial interpolation; numerical integration and numerical differentiation; ordinary and partial differential equations. Additional topics such as optimization, eigenvalues, Fourier analysis, splines, and Romberg integration may be included as time allows.

0101	Shuna Ni	Seats (Total: 20)	
	TuTh 2:00pm - 3:15pm	JMP 2202	

ENFP310 **Water Based Fire Protection Systems Design**

Prerequisite: ENFP300. Corequisite: ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to aqueous fire suppression. Discussion of key fluid dynamics and heat transfer processes in aqueous fire suppression. System design and performance analysis based on national standards, hydraulic theory and elementary fluid dynamics and heat transfer.

0101	Kenneth Isman	Seats (Total: 30)	
	MF 11:00am - 11:50am	AJC 2119	
	W 11:00am - 12:50pm	AJC 2119	Discussion

ENFP312 **Heat and Mass Transfer**

Prerequisite: ENES232 and ENFP300. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP312 or ENME332.

Fundamentals of heat and mass transfer. Conduction, convection, and radiation modes of heat transfer. Diffusion concepts and evaporation phenomena. Problem solving techniques with application to fire problems.

0101	Paul Anderson	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	JMP 2202	
	F 12:00pm - 1:50pm	JMP 1202	Discussion

ENFP350 **Professional Development Seminar**

(Perm req)

Prerequisite: Permission of ENGR-Fire Protection Engineering department. Restriction: Junior standing or higher.

An integrative, upper level professional development seminar covering topics such as engineering ethics, professional licensing, codes and standards, intellectual property, career selection and various contemporary issues in fire protection engineering.

0101	Rosalie Wills	Seats (Total: 30)	
	M 5:00pm - 5:50pm	JMP 1202	

ENFP411 **Risk-Informed Performance Based Design**

(Perm req)

Restriction: Senior standing; or permission of ENGR-Fire Protection Engineering department.

Appraisal and measurement of fire safety. Application of systems analysis, probability theory, engineering economy and risk management in the identification and synthesis of components of fire protection engineering. Methods for the development of criteria for the design, evaluation and assessment of fire safety or component hazards.

0101	Kenneth Isman	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	AJC 2119	
	W 3:30pm - 4:30pm	JMP 1109	Discussion

ENFP413 **Human Response to Fire**

(Perm req)

Prerequisite: ENFP250. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with ENFP613. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety calculations. Physiology and toxicology of the fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

0101	Chris Campbell, James Milke	Seats (Total: 28)	
	TuTh 9:30am - 10:45am	JMP 2202	

ENFP420 **Fire Assessment Methods and Laboratory**

Prerequisite: Student must have senior standing; and minimum grade of C- in ENFP312. Restriction: Must be in Engineering: Fire Protection program. Credit only granted for: ENFP320 or ENFP420. Formerly: ENFP320.

Experimental evaluation of ignition, flame spread, rate of heat release and smoke production of flammable gases, liquids, solids, and interior finish materials. Analytical and computer methods for the design, performance, and analysis of fire experiments. Preparation of laboratory reports.

0101	Stanislav Stoliarov TuTh 12:30pm - 1:45pm W 11:00am - 12:15pm	Seats (Total: 10) JMP 1202 JMP 3229	 Lab
0102	Stanislav Stoliarov TuTh 12:30pm - 1:45pm W 12:00pm - 1:15pm	Seats (Total: 8) JMP 1202 JMP 3229	 Lab
0103	Stanislav Stoliarov TuTh 12:30pm - 1:45pm W 1:00pm - 2:15pm	Seats (Total: 8) JMP 1202 JMP 3229	 Lab

ENFP426 **Computational Methods in Fire Protection**

(Perm req)

Recommended: ENFP425. Restriction: Permission of ENGR-Fire Protection Engineering department.

Introduction to computer-based fire modeling: zone modeling and Computational Fluid Dynamics (CFD); documentation of input data, validation and verification tests.

0101	Arnaud Trouve TuTh 11:00am - 12:15pm	Seats (Total: 30) EGR 0312

ENFP429 **Independent Studies**

(Perm req)

For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

Senior standing. For ENFP majors only.

Contact department for information to register for this course.

ENFP461 **Think Tank**

Recommended: Junior standing in fire protection engineering.

Designed to have the student apply critical thinking in both engineering and business terms through a unique combination of student-driven, competition-based, long-term, targeted learning.

0101	Kenneth Isman TuTh 12:30pm - 1:45pm	Seats (Total: 10) JMP 1109

ENFP465 **Fire and Explosion Investigations**

(Perm req)

Prerequisite: Student should have senior standing. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP489N, ENFP629N OR ENFP665. Formerly: ENFP489N. Additional information: The course will be taught as a shared senior-level undergraduate course and graduate course.

This course covers many aspects of fire and explosion investigation and reconstruction. Information on field techniques, applicable standards, and best practices are presented with an emphasis on how fire science and fire dynamics can be applied to forensic analysis. Experiments are performed and analyzed to demonstrate the concepts.

0101	Thomas DeBold, John Pagliaro M 8:30am - 9:45am W 8:30am - 9:45am	Seats (Total: 25) JMP 2202 ONLINE

ENFP489 **Special Topics**

(Perm req)

Selected topics of current importance to fire protection.

For ENFP majors only.

Contact department for information to register for this course.

ENFP613 **Advanced Life Safety Analysis**

(Perm req)

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety engineering calculations. Physiology and toxicology of fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

0101	James Milke, Chris Campbell TuTh 9:30am - 10:45am	Seats (Total: 10) JMP 2202

ENFP619 **Graduate Seminar**

(Perm req)

0101	Arnaud Trouve	Seats (Total: 10)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

ENFP620 **Fire Dynamics Laboratory**

Recommended: ENFP415.

Laboratory experiments are designed to illustrate fire phenomena and test theoretical models. Diffusion flames, ignition and flame spread on solids, liquid pool fires, wood crib fires, fire plumes, compartment fires.

0101	Fernando Raffan Montoya	Seats (Total: 10)
	Tu 2:00pm - 5:50pm	ATL 2316

ENFP629 **Selected Topics**

(Perm req)

Current research, studies in fire protection engineering. Future trends and significant changes in research, professional areas. The professional standards process.

Contact department for information to register for this course.

ENFP630 **Diffusion Flames and Burning Rate Theory**

Prerequisite: ENFP312.

Basic principles of diffusion flames for gaseous, liquid, and solid fuels. Droplet burning, B number, jet combustion, boundary layer combustion, generalized methods.

0101	Peter Sunderland	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	EGR 1110

ENFP649 **Special Problems**

(Perm req)

Advanced topics selected by the faculty from the current literature to suit the special needs and background of students, or for individual students who have definite plans of individual study.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENFP653 **Advanced Fire Suppression**

(Perm req)

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP410, ENFP610, or ENFP653.

Issues related to the suppression of fires and the design of fire suppression systems. Theoretical aspects of fire suppression and extinction are considered to provide the foundation for the practical design of different types of fire suppression systems. Focus on water-based and "clean agent" fire suppression systems, with emphasis on high challenge and special hazard applications. Systems using other agents are introduced, but are not addressed in detail.

EF01	Jason Sutula	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ENFP664 **Advanced Industrial Fire Safety**

Jointly offered with ENFP464. Credit only granted for: ENFP489I, ENFP62 9I, ENFP464, or ENFP664. Formerly: ENFP489I and ENFP629I.

This class is designed to introduce students to the basics of process safety with a focus on the methods and techniques that may be utilized when evaluating the existing or proposed safety protection solutions in industrial facilities. An emphasis is placed on properly identifying the hazards that are present, the risk exposure, and how best to address the risk. The foundation is laid by presenting the necessary background information on industrial processes and integrating this information with applicable fire/explosion safety science.

EF01	Noah Ryder	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ENFP665 **Advanced Fire and Explosion Investigations**

(Perm req)

Restriction: Permission of the Fire Protection Engineering department. Jointly offered with: ENFP465. Credit only granted for: ENFP629N, ENFP489N OR ENFP465. Formerly: ENFP629N. Additional information: The course will be taught as a shared senior-level undergraduate course and graduate course.

This course covers many advanced aspects of fire and explosion investigation and reconstruction. Information on field techniques, applicable standards, and best practices are presented with an emphasis on how advanced fire science and fire dynamics can be applied to forensic analysis. Experiments are performed and analyzed to demonstrate the concepts.

0101	John Pagliaro, Thomas DeBold	Seats (Total: 10)
	M 8:30am - 9:45am W 8:30am - 9:45am	JMP 2202 ONLINE

ENFP799 **Master's Thesis Research**

(Perm req)

Development and completion of Master's Thesis.

Contact department for information to register for this course.

ENGL English Spring 2024

FOR MORE DETAILED DESCRIPTIONS OF THE COURSES OFFERED, CLICK HERE TO VISIT THE ENGLISH DEPARTMENT WEBSITE English as a second language classes are listed under UMEI.

ENGL101 Academic Writing

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students with a TSWE score of 33 or below must take ENGL 101A in place of ENGL 101. Students for whom English is a second language should consider taking ENGL 101X in place of ENGL 101.

0001	Porter Olsen MWF 8:00am - 8:50am	Seats (Total: 19) TWS 1313
0002	Andrew Howard MWF 8:00am - 8:50am	Seats (Total: 19) TWS 1321
0101	Andrea Knowles MWF 9:00am - 9:50am	Seats (Total: 19) TWS 3134
0102	Andrew Howard MWF 9:00am - 9:50am	Seats (Total: 19) TWS 3250
0103	Xiaofang Huang MWF 9:00am - 9:50am	Seats (Total: 19) TWS 3136
0104	Stephanie Allen MWF 9:00am - 9:50am	Seats (Total: 19) KEY 0124
0105	Porter Olsen MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1321
0106	Catherine Byrne MWF 9:00am - 9:50am	Seats (Total: 19) TWS 3132
0203	Paul Cote MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3134

0204	Olubukola Salako MWF 10:00am - 10:50am	Seats (Total: 19) ASY 3221
0205	Anthony Batts MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0121
0206	Stephanie Allen MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0124
0207	Andrea Knowles MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3132
0301	Paul Cote MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3134
0302	Catherine Byrne MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0120
0304	Sydney Sharpstene MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0121
0308	Porter Olsen MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3136
0309	Annemarie Ewing MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3132
0401	Catherine Byrne MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0102
0402	Anthony Batts MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1320
0403	Andrew Howard MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3252
0404	Sydney Sharpstene MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0125
0405	Alexander Hess MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3250

0407	Xiaofang Huang MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3136
0408	Olubukola Salako MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1321
0501	Sabrina Islam MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3250
0502	Andrea Knowles MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0123
0503	Edward Daschle MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0121
0504	Olubukola Salako MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3252
0506	Anthony Batts MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1320
0507	Catherine Byrne MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3134
0601	Charles Mitchell MWF 2:00pm - 2:50pm	Seats (Total: 19) ASY 3219
0602	Sabrina Islam MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3250
0603	Olubukola Salako MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3136
0604	Sydney Sharpstene MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3252
0605	Dylan Carpenter MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3134
0606	Nahid Ahmadian MWF 2:00pm - 2:50pm	Seats (Total: 19) JMZ 1224

0701	Brian Davis MW 5:00pm - 6:15pm	Seats (Total: 19) KEY 0123
0702	Brian Davis MW 6:30pm - 7:45pm	Seats (Total: 19) KEY 0121
1001	Daniel Sidman TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1321
1002	Janet Shim TuTh 8:00am - 9:15am	Seats (Total: 19) ASY 3221
1101	Anne Bolgiano TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3219
1102	William Pittman TuTh 9:30am - 10:45am	Seats (Total: 19) TLF 1101
1103	Victoria Moten TuTh 9:30am - 10:45am	Seats (Total: 19) LEF 1171
1104	Peter Grybauskas TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3132
1106	Mike Kolakoski TuTh 9:30am - 10:45am	Seats (Total: 19) EDU 3236
1108	Liam Daley TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3221
1109	John Macintosh TuTh 9:30am - 10:45am	Seats (Total: 19) ASY 3217
1202	Daniel Sidman TuTh 11:00am - 12:15pm	Seats (Total: 19) EDU 3233
1203	William Pittman TuTh 11:00am - 12:15pm	Seats (Total: 19) TLF 1103
1204	Rachel Cote TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1313

1205	Kassiah Drummond TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0123
1206	Joshua Weiss TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3219
1207	Anne Bolgiano TuTh 11:00am - 12:15pm	Seats (Total: 19) EDU 2101
1208	John Macintosh TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3217
1301	Anne Bolgiano TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0230
1302	Peter Grybauskas TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3132
1303	Amanda Fiore TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3250
1304	Subraj Singh TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0123
1305	Anna Cronan TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3221
1306	Joshua Weiss TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3136
1401	Leela Chantrelle TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0123
1402	John Tobin TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0119
1403	Joshua Weiss TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3136
1404	James Rankin TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1113

1405	Tom Hatcher TuTh 2:00pm - 3:15pm	Seats (Total: 19) LEF 1220
1406	Liam Daley TuTh 2:00pm - 3:15pm	Seats (Total: 19) KNI 1105
1601	Ariana Nash TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105
1701	Ariana Nash TuTh 6:30pm - 7:45pm	Seats (Total: 19) TWS 3132
9001	Radford Skudrna Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9002	Radford Skudrna Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9003	Erica Cochran Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9004	Thomas Earles Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9005	Robert Lucci MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9006	Robert Lucci MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9007	Katherine Joshi Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) TWS 3252 ONLINE

9008	Katherine Joshi Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) TWS 3252 ONLINE
9009	Radford Skudrna Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9010	Nia Crawford Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9011	David Brookshire MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) TWS 1313 ONLINE
9012	David Brookshire MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) TWS 1313 ONLINE
9013	David Brookshire MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) TWS 1313 ONLINE
9014	David Brookshire MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) TWS 1313 ONLINE
9015	Yvonne Roe Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) TWS 3252 ONLINE
9016	Yvonne Roe Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) TWS 3252 ONLINE
9017	Sonney Wolfe Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE

9018	Erica Cochran Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9019	Catherine Bayly MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) CCC 1105 ONLINE
9020	Catherine Bayly MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) ATL 0201 ONLINE
9021	Katherine Joshi Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) TWS 0207 ONLINE
9022	Susan Pramschufer Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0124 ONLINE
9023	Robert Lucci MF 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0124 ONLINE
9024	Nia Crawford Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 19) KEY 0120 ONLINE
9025	Sonney Wolfe Th 5:00pm - 6:15pm Tu 5:00pm - 6:15pm	Seats (Total: 19) KEY 0120 ONLINE
9026	Tom Hatcher Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0124 ONLINE
9028	Nia Crawford Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0119 ONLINE

9029	Erica Cochran Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0119 ONLINE

ENGL101A **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

1703	Andi Sauer TuTh 9:30am - 10:45am	Seats (Total: 15) TWS 3250

ENGL101H **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

0408	Noah Mastruserio MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0121

ENGL101S **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Restricted to College Park Scholars.

0209	Lara Payne MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1115
0309	Lara Payne MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1115
1309	Victoria Moten TuTh 12:30pm - 1:45pm	Seats (Total: 19) CCC 1105
1409	Mike Kolakoski TuTh 2:00pm - 3:15pm	Seats (Total: 19) CCC 1115

9001	Catherine Bayly MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1115 ONLINE	
9002	Catherine Bayly MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1115 ONLINE	

ENGL101X **Academic Writing**

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Limited to students for whom English is a second language. To register for ENGL 101X, a student must first demonstrate competence in English. Proof of one of the following should be brought to advisors: 1) a minimu m score of 100 on the iBT 2) a minimum score of 7 on the IELTS or 3) successful completion of UMEI 005, Advanced English as a Foreign Language, Semi-Intensive.

2003	Laura Williams TuTh 11:00am - 12:15pm	Seats (Total: 18) TWS 3250	
2004	Xiaofang Huang MWF 10:00am - 10:50am	Seats (Total: 18) TWS 3250	
2006	Laura Williams TuTh 2:00pm - 3:15pm	Seats (Total: 18) TWS 3250	

ENGL125 **Why Poetry Matters**

Poetry is most often understood as self-expression; it's also communal expression, and cultural expression; it's also a particular kind of construction made out of language. Explore the art form called poetry, including its formal properties, its conventions, and its legacy of experimentation. What role does poetry play in how we think about the human condition; what constitutes knowledge and wisdom, interior subjectivity and collective identity; and how shall this knowledge be used in confronting new challenges and the perennial questions: how to live with oneself, and as oneself; in time, and with others; here, where we reside; and elsewhere, where we imagine ourselves going. This is a hands-on course in reading and practicing the art of poetry, including short critical and creative writing exercises.

0101	Joshua Weiner MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 22) JMZ 0220 TWS 1313	Discussion

0102	Joshua Weiner MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 22) JMZ 0220 TWS 1313	Discussion
0103	Joshua Weiner MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 22) JMZ 0220 TWS 1313	Discussion
0104	Joshua Weiner MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 22) JMZ 0220 TWS 1313	Discussion
0105	Joshua Weiner MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 22) JMZ 0220 TWS 1313	Discussion
0106	Joshua Weiner MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 22) JMZ 0220 TWS 1313	Discussion

ENGL142 **Literary Maryland**

Credit only granted for: ENGL142 or ENGL289M. Formerly: ENGL289M.

What does the literature of Maryland teach us about our state's past, present, and future? "Literary Maryland" explores this question by taking students on a tour of our state's prose, poetry, and drama from colonization to the present. In addition to reading fascinating writing and visiting interesting places, you'll learn how the Chesapeake was formed; why nobody sings the entire national anthem; and what led Baltimore to name its football team after a poem written by a Virginian.

0101	Blake Wilder MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 0310 TWS 1106	Discussion
0102	Blake Wilder MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 0310 TWS 1106	Discussion
0103	Blake Wilder MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 0310 TWS 1106	Discussion

0104	Blake Wilder MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 24) TWS 0310 TWS 1106	 Discussion

ENGL143 **Visualizing Knowledge: From Data to Images**

Explores how technology and people shape our current age of information through the various forms of visually representing information. Visualizations do not show us things that are evident--visualizations make things evident. We will thus examine the history of visualization practices, the theories of image-making that guide their production, and the current state of the art. Students will engage critically with a wide range of information visualization practices to gain an understanding of the work involved in producing them and their histories. Students will also seek out contemporary visualizations, interact with the practitioners who produce them, and produce their own visualization as a response or critique.

0101	Oliver Gaycken MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 24) TWS 0320 TWS 0214	 Discussion
0102	Oliver Gaycken MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 0320 TWS 0214	 Discussion
0103	Oliver Gaycken MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 0320 TWS 0214	 Discussion
0104	Oliver Gaycken MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 0320 TWS 0214	 Discussion

ENGL202 **Inventing Western Literature: Renaissance to Modern**

Wide range of texts from the Renaissance to the 21st century. Themes and literary techniques in the evolution of Western literature. Print publication, industrialization, questioning of religious, political, intellectual, and cultural authority.

Contact department for information to register for this course.

ENGL222 **American Literature(s)**

Explore American literary traditions in a variety of poetic and narrative forms and in diverse historical contexts, ranging from colonization to the Civil Rights Movement and beyond. Genres examined in this course might include lyric poems, travel narratives, gothic short fiction, slave narratives, and science fiction. Emphasis on developing skills of literary interpretation and critical writing, while attending to the place of race, class, gender, and sexuality in American literary culture. Authors may include Phillis Wheatley, Herman Melville, Walt Whitman, Emily Dickinson, Frederick Douglass, Gertrude Stein, F. Scott Fitzgerald, James Baldwin, and Toni Morrison, among others.

0101	James Goodwin TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0214

ENGL233 **Introduction to Asian American Literature**

Cross-listed with: AAST233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	Jennifer Cho TuTh 2:00pm - 3:15pm	Seats (Total: 40) EDU 1121

ENGL234 **African-American Literature and Culture**

Cross-listed with: AASP298L. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with AASP298L. Credit granted for AASP298L or ENGL234.

0101	Tyra Griffin TuTh 12:30pm - 1:45pm	Seats (Total: 30) KEY 0121

ENGL235 **U.S. Latinx Literature and Culture**

Cross-listed with: AMST298Q. Credit only granted for: ENGL235 or AMST298Q.

Examines the poetry, prose, and theater of Latinx communities in the United States from their origins in the Spanish colonization of North America to their ongoing development in the 21st century. Considers how authors use literary form to gain insight into human experience, including mortality, religious belief, gender and sexuality, war and peace, family, language use, scientific inquiry, cultural tradition, ecology, and labor. Also studies how Latinx literary traditions have shaped and been shaped by broader currents in American literature, as well as what connections exist between Latinx literature and social and artistic developments in other parts of the world, particularly Latin America and the Caribbean. Authors may include Alvar Nunez Cabeza de Vaca, Eulalia Perez, Juan Nepomuceno Seguin, Maria Amparo Ruiz de Burton, Jose Marti, Arthur A. Schomburg, Jesus Colon, Julia de Burgos, Cesar Chavez, Ariel Dorfman, Gloria Anzaldua, Junot Diaz, and Cristina Garcia.

Cross-listed with AMST298Q. Credit granted for ENGL235 or AMST298Q.

0101	Andrea Knowles MWF 11:00am - 11:50am	Seats (Total: 30) TWS 0214

ENGL241 **What the Novel Does**

An exploration of what the novel does that cannot be done by film, by television, by cell-phone screens, by any stream of images, or by textual excerpts pulled up for a quick read. The different ways of the novel, with particular focus on the process of thinking and the developed consciousness. The novel as a machine to think with and an irreplaceable model of complex human thought. Study of how thought is presented in radically different ways in novels that cross lines of class, gender, chronology, and nationality.

0101	James Rankin TuTh 5:00pm - 6:15pm	Seats (Total: 30) TWS 0221

ENGL243 **What is Poetry?**

An exploration of arguably the most complex, profound, and ubiquitous expression of human experience. Study through close reading of significant forms and conventions of Western poetic tradition. Poetry's roots in oral and folk traditions and connections to popular song forms.

0401	Aaron Bartlett TuTh 3:30pm - 4:45pm	Seats (Total: 30) TWS 0214

ENGL244 **The Play's the Thing**

Exploration of drama through a consideration of plot, narrative flow, analytical flow, staging, performance, manuscript and printing history, text and textual change over time, and interpretation. Plays will be approached as public attempts to understand what it means to be alive.

Contact department for information to register for this course.

ENGL245 **Film Form and Culture**

Cross-listed with: CINE245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0201	Alan Montroso TuTh 2:00pm - 3:15pm	Seats (Total: 27) TWS 0320
0301	Alan Montroso TuTh 11:00am - 12:15pm	Seats (Total: 27) TWS 0320

ENGL246 **Introduction to the Short Story**

A survey of the genre, with a focus on significant elements, such as plot, character, description, style, and theme. Readings will be drawn from a range of cultures and communities.

0101	Andrew Howard	Seats (Total: 30)
	MWF 10:00am - 10:50am	TWS 0221

ENGL250 **Reading Women Writing**

Cross-listed with: WGSS255. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0101	Morgan Robinson	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TWS 0221

ENGL255 **Literature of Science and Technology**

Examines science and technology through the lens of British and American literature, primarily between 1800 and the present. Readings from early natural and experimental philosophers of the Scientific Revolution and Enlightenment. How literary works represent the ethics of science and technology; beneficial developments of science, and also heavy toll of industrialization. Writers studied may include Francis Bacon, Mary Shelley, Charles Darwin, H.G. Wells, Albert Einstein, Aldous Huxley, Richard Feynman, Philip K. Dick, Octavia Butler, Michael Frayn, and Tom Stoppard.

0201	Annemarie Ewing	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	TWS 0234

ENGL256 **Fantasy Literature**

How fantasy employs alternate forms of representation, such as the fantastical, estranging, or impossible, which other genres would not allow. Through novels, short stories, graphic novels, and film, traces fantasy's roots in mythology and folklore, then explores how modern texts build upon or challenge these origins. Examination of literary strategies texts use to represent the world through speculative modes. How to distinguish fantasy from, and relate it to, other genres such as science fiction, horror, fairly tales, and magical realism. Fantasy's investment in world-building, history, tradition, and categories of identity such as race, class, and gender. How fantasy, as a genre, form, and world-view, is well-suited to our contemporary reality.

0101	Fernando Duran	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TWS 0221

ENGL257 **Children's Literature**

Literature of the nineteenth through the twenty-first century concerned with, and written for, children and young adults. How such narratives speak to themes of changing social, religious, political, and personal identity. Through poetry, novels, graphic novels, and film, explores how children's tales encapsulate and reflect on human existence, while pushing boundaries of what constitutes "children's literature" and what exactly defines the "child." Considers questions of literary classification through investigation of political and religious issues, gender politics, animal rights, social justice, race, war, and what it means to "grow up."

0101	Sydney Sharpstene	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TWS 0214

ENGL262 **Introduction to the Hebrew Bible/Old Testament**

Cross-listed with: JWST262, HEBR298B. Credit only granted for: JWST262, HEBR298B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

Contact department for information to register for this course.

ENGL265 **LGBTQ+ Literatures and Media**

Restriction: Must not have completed LGBT265. Cross-listed with: LGBT265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0201	Timmy Bridgeman	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	TWS 0234

ENGL269B **Special Topics in Study Abroad II; Writing Workshop I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269C **Special Topics in Study Abroad II; Writing Workshop II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269R **Special Topics in Study Abroad II; Writing Rome**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269X **Special Topics in Study Abroad II; Theories of Text**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL271 **Writing Poems and Stories: An Introductory Workshop**

Introduction to theory and practice of writing fiction and poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Tom Hatcher TuTh 11:00am - 12:15pm	Seats (Total: 15) KEY 0121
0102	Tom Hatcher TuTh 11:00am - 12:15pm *Restricted to students in the Jiminez-Porter Writers' House.*	Seats (Total: 5) KEY 0121
0201	Anna Cronan TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0121
0301	Eliamani Ismail MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0120

ENGL272 **Writing Fiction: A Beginning Workshop**

Introduction to theory and practice of writing fiction. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Oghenetega Oghenechovwen TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0120
0201	Corinne Brinkley TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0121
0301	Edward Daschle MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0123
0401	Subraj Singh TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0123

ENGL273 **Writing Poetry: A Beginning Workshop**

Introduction to theory and practice of writing poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Kassiah Drummond TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0119
0201	Dylan Carpenter MWF 11:00am - 11:50am	Seats (Total: 20) KEY 0124

ENGL275 **Scriptwriting for Theater, Film, and Television**

Cross-listed with: ARHU275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Anna Josephson MWF 10:00am - 10:50am	Seats (Total: 15) KEY 0120
0102	Anna Josephson MWF 10:00am - 10:50am *Restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0120

ENGL289G **Special Topics in English; Machine Learning in Language and Art**

Introduces students to notable themes and approaches in English studies. Topics vary by section and semester.

Cross-listed with ARhU299M and COMM298M. Credit only granted for ARHU299M, COMM298M, or ENGL289G. How do language models like ChatGPT generate essays, poems, and stories? How do machine learning models learn to determine the author of a text, or identify the artist behind a painting? What makes language models like ChatGPT different from image generators like Stable Diffusion? And can language models be used to make music? We will teach you how to build models that read and write in natural languages, what makes those models different from applications of machine learning to visual art and music, how to use Python for data analysis and statistics, how to visualize data, and how to apply mathematical and statistical knowledge to practical problems in the digital humanities. No background in coding or statistics is required, but students with some programming or statistics experience are also very welcome in the course.

0101	Utku Turk, Omar Agha TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0125

ENGL290 **Introduction to Digital Studies**

Introductory course in digital studies. Surveys contemporary humanities work in digital technologies, including the web and social media and their historical antecedents. Explores design and making as analytical tools alongside reading and writing. Situates digital media within power and politics and develops critical awareness of how media shape society and ethics. Interdisciplinary approaches to creativity, analysis, and technology. While the course will include hands-on practice, no prior experience of programming, designing, or making required other than a willingness to experiment and play.

0101	Mehdy Sedaghat Payam	Seats (Total: 20)	
	MWF 12:00pm - 12:50pm	ASY 3221	

ENGL291 **Writing, Revising, Persuading**

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Intermediate-level, writing-intensive course for students who have successfully satisfied the Fundamental Studies Academic Writing requirement but wish to hone skills in analyzing and producing rhetorically attuned, well-styled prose. Deeper study of rhetorical theory and its application to a wide variety of arguments and situations. Additional writing practice, techniques of revision, study of effect of stylistic choices. Topics may include argumentation theory, visual rhetoric, stylistic theory, and writing theory.

Contact department for information to register for this course.

ENGL292 **Writing for Change**

Prerequisite: Permission of ARHU-English department. Recommended: ENGL101. Restriction: Requires application and references. Jointly offered with: ENGL388C. Credit only granted for: ENGL292 or ENGL388C.

Service learning in collaboration with students at area high schools. Explores how writing can be a tool for social change. Participants serve as mentors, create a performance event concerning a pressing social issue, and compose reflections, literacy narratives, publicity materials, and a multimodal project. Focus on developing critical self-awareness.

Jointly offered with ENGL388C. Credit granted ENGL292 or ENGL388C.

0101	Justin Lohr	Seats (Total: 18)	
	TuTh 2:00pm - 3:15pm	TWS 3252	
	Tu 12:30pm - 1:45pm	TWS 3134	Lab

ENGL293 **Writing in the Wireless World**

Recommended: ENGL101.

A hands-on exploration of writing at the intersection of technology and rhetoric. Students will learn to read, analyze, and compose the kinds of multimodal documents--documents combining text, image, and sound--that constitute communication in our digital world.

0101	James Perla TuTh 2:00pm - 3:15pm	Seats (Total: 22) ASY 3219

ENGL294 **Persuasion and Cleverness in Social Media**

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Exploration of various persuasive media encountered in daily life through the lens of rhetorical and critical theories. Principles of rhetoric and analysis of how persuasion functions across media. Invention of effective multimedia works appropriate to purpose, audience, and context. Concepts from cultural studies used to develop critical awareness about power and ideology and how they influence the way people produce and understand messages. By integration of technology, rhetoric, and cultural studies, students become more critically-rhetorically informed thinkers, authors, and audiences of arguments and culture in the digital age. Writing intensive course. No prior multimedia experience is expected.

0101	Porter Olsen MWF 12:00pm - 12:50pm	Seats (Total: 20) TWS 3132

ENGL295 **Introduction to Digital Storytelling and Poetics**

What is the thread weaving through an animated visualization of economic data in a popular newspaper, an indie text-based videogame, a saucy twitter bot spitting out haikus, and an interactive digital essay? Storytelling--using whatever is at hand to communicate with audiences in evocative and connected ways. Combining technical and textual analysis with their own experiments in digital composition, students will learn to use new media techniques for the interpretation, creation, and dissemination of both critical and imaginative writing. From branching narratives to hypertext media and video games, to more recent developments in machine-generated poetry, XR, and embodied and location-based narrative, the methods and materials in this introductory course link creative expression and analysis of texts to contemporary conversations about social difference, representation, interface, and computation.

0101	Natalie McGartland Tu 3:30pm - 6:00pm	Seats (Total: 25) TWS 1320

ENGL297 **Research and Writing in the Workplace**

Prerequisite: ENGL101.

Introduction to the rhetorical principles and professional practices of professional writing, particularly the research, writing, communication, analytical, and technological skills needed for the Professional Writing minor. How culture and technology relate to the work of professional writing; design principles and rhetorical moves; digital tools, research skills, and writing strategies of professional writers. Develops skills needed to publish a writing portfolio that showcases students' professional writing competencies and projects their professional writer identities.

0101	Elizabeth Marshall MW 2:00pm - 3:15pm	Seats (Total: 22) TWS 0224

0201	Rebecca Holden TuTh 2:00pm - 3:15pm	Seats (Total: 22) TWS 0224

ENGL301 **This is English: Fields and Methods**

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

"English" means a lot of things. Are you looking for literature, or linguistics? For writing--creative, critical, or professional? For theater, or debate? For film, or even videogames? This gateway course for the English major introduces you to all of these areas and more, as well as to our discipline's unique resources for studying and enjoying them. The English discipline includes three main interpretive fields: Literary and Cultural Studies; Language, Writing, and Rhetoric; and Media Studies. This course brings together the fundamental concepts and methods for reading, viewing, and researching practiced in these fields, launching you into English studies and and helping you to choose the major track that is right for you.

0201	Christina Walter MW 5:00pm - 6:15pm	Seats (Total: 15) TWS 3132
0401	Kim Coles TuTh 11:00am - 12:15pm	Seats (Total: 15) TWS 3132
0501	John Macintosh TuTh 2:00pm - 3:15pm	Seats (Total: 15) TWS 3132
0801	Christina Walter MW 2:00pm - 3:15pm	Seats (Total: 15) TWS 3132

ENGL317 **African American Literature**

Consideration of key texts in African American literature that explore the experiences of people of African descent in America from the mid-nineteenth century to the contemporary moment. Relationship between literary texts, historical events and cultural formations. Examines a range of texts and genres (autobiography, slave narrative, travel narrative, poetry, essays, fiction), and their contribution to national literary tradition.

Cross-listed with AASP398C and AMST328U. Credit granted for AASP398C, AMST328U, or ENGL317.

0101	Julius Fleming MW 2:00pm - 3:15pm	Seats (Total: 25) TWS 1106

ENGL329A **Special Topics in Film Studies; Cinema of Liberation**

Studies in various periods and genres of film.

Cross-listed with CMLT398C. Credit granted for ENGL329A or CMLT398C. Repeatable to 9 credits if content differs. Studies in various periods and genres of film.

0201	Mike Kolakoski	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL329B **Special Topics in Film Studies; Cartoons on the Page and on the Screen**

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, CINE245, CINE283, FILM283, or SLLC283; or permission of instructor. Cross-listed with CINE319F. Credit only granted for CINE319F, FILM319F or ENGL329B.

0101	Paul Cote	Seats (Total: 25)
	MW 12:00pm - 1:50pm	KNI 1105

ENGL329M **Special Topics in Film Studies; Ecomedia**

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, SLLC283, CINE245 or FILM283 or CINE283; or permission of instructor.

0101	Oliver Gaycken	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 1320

ENGL329N **Special Topics in Film Studies; Post-Cinema: Theories of Media and Technological Change**

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, CINE245, CINE283, FILM283, or SLLC283; or permission of instructor. Cross-listed with CINE369T. Credit only granted for CINE369T or ENGL329N.

0101	Marianne Conroy	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 1321

ENGL329R **Special Topics in Film Studies; The Cinema of Steven Spielberg**

Studies in various periods and genres of film.

Prerequisites: ENGL245, FILM245, CINE245, CINE283, FILM283, or SLLC283, or permission of instructor. Cross-listed with CINE359Q. Credit only granted for ENGL329R, CINE359Q, or FILM359Q.

0101	Paul Cote	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TWS 0214

ENGL329Y **Special Topics in Film Studies; A Cinema of Migration as Message**

Studies in various periods and genres of film.

0201	Sara Faradji Class time/details on ELMs	Seats (Total: 25) ONLINE

ENGL331 **American Jewish Literature**

Cross-listed with JWST341. Credit only granted for: ENGL331 or JWST341.

An exploration of the role played by literature in the development of American Jewish ethnic identity. Primary materials include essays, poetry, plays, short stories, novels, films and music.

0101	Adi Mahalel TuTh 3:30pm - 4:45pm	Seats (Total: 30) SQH 1101

ENGL346 **Twentieth Century Fiction**

Major British, American, and other fiction writers of the twentieth century studied in the context of the broad global, intellectual, and artistic interests of the century.

0101	Brian Richardson TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 0214

ENGL352 **Intermediate Fiction Workshop**

(Perm req)

Prerequisite: Minimum grade of A- in ENGL271 or ENGL272; or permission of ARHU-English department.

A class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and the fiction of colleagues, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

0101	Rachel Waugh Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3252
0201	Sabrina Islam W 3:30pm - 6:00pm	Seats (Total: 15) TWS 1313
0301	Nicole Cuffy Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

ENGL353 **Intermediate Poetry Workshop**

(Perm req)

Prerequisite: Minimum grade of A- in ENGL271 or ENGL273; or permission of ARHU-English department.

A class in the making of poetry. Intensive discussion of students' own poems. Readings in both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, memorization, and attendance at poetry readings.

0101	Amanda Stallings	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TWS 3250

ENGL354 **Intermediate Scriptwriting for Theater, Film, and Television**

(Perm req)

Prerequisite: 1 course with a minimum grade of A- from (ENGL275, ARHU375, THET340).

Demystifies the art of dramatic writing. Students will come to understand that a play or screenplay is never a lecture, and that we write scripts to find out something about ourselves and the subjects we tackle. Students will analyze plays and screenplays, as well as workshop each others' scripts, to help them produce their own successful plays and screenplays written for the stage, screen, or box.

0101	Michael Olmert	Seats (Total: 15)
	Th 3:30pm - 6:00pm	TWS 1321

ENGL358F **Special Topics in U.S. Latinx Literature; Contemporary Latinx Literature**

Topical study of selected works by U.S. Latinx writers.

0101	Randy Ontiveros	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 1320

ENGL361 **Recovering Oral Histories**

Prerequisite: Students must have completed one course in English, Latin American Studies, or Education.

Service-learning course that gives students an opportunity to develop writing, interviewing, and communication skills as they contribute to the work of a community organization. In the classroom, students will reflect on the process and do background research to understand the particular context of the organization's work. In the field, students will interview (or have informal discussions with) young people helped by the organization in order to construct a narrative about their lives, their perceptions of themselves, and their experiences.

0101	Sharada Balachandran Orihuela	Seats (Total: 15)
	M 3:30pm - 6:00pm	TWS 3250

ENGL362 **Caribbean Literature in English**

Cross-listed with: LACS348E. Credit only granted for: ENGL362, LASC348E, or LACS348E.

Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

Cross-listed with LASC348E. Credit granted for ENGL362 or LASC348E.

Contact department for information to register for this course.

ENGL368B **Special Topics in African American, African, and African Diaspora Literatures; Blues and African American Folksong**

Topical study of selected literature by African American and Black Diaspora writers from Africa, the Caribbean, North and South America, and beyond.

0101	Barry Pearson	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TWS 0221

ENGL368J **Special Topics in African American, African, and African Diaspora Literatures; Contemporary Black Literature**

Topical study of selected literature by African American and Black Diaspora writers from Africa, the Caribbean, North and South America, and beyond.

0101	Sangeeta Ray	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 3132

ENGL369G **Special Topics in Study Abroad III; Adapting Literature to the Screen**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369H **Special Topics in Study Abroad III; London Stage**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369I **Special Topics in Study Abroad III; Images of Italy in the U.K. and U.S.A.**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369L **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Q **Special Topics in Study Abroad III; Literature of the Shoah**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369X **Special Topics in Study Abroad III; Literature in Liguria**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Z **Special Topics in Study Abroad III; The London Stage**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL370 **Junior Honors Conference**

(Perm req)

Restriction: Candidacy for honors in English.

Preparation for writing the senior honors project.

0101	Julius Fleming	Seats (Total: 20)
	W 3:30pm - 5:00pm	TWS 3136

ENGL376 **The Speculative Imagination: Science Fiction on Page and Screen**

Credit only granted for: ENGL379Y or ENGL376. Formerly: ENGL379Y.

Examines a global cross-section of science fiction in literature, film, television, comics, and other media. Studies the unique formal qualities of science fiction and traces its history from its origin in the eighteenth century to the present. Explores how the twenty-first century has brought new prominence to science fiction by creators of color, women creators, and queer creators, as well as intersections of these. Considers how science fiction addresses a range of phenomena--from environmental destruction to surveillance to imperialism and militarism. Students learn how to analyze and write about the formal and historical dimensions of the genre.

0101	Lee Konstantinou	Seats (Total: 25)
	MW 2:00pm - 3:15pm	TWS 0234

ENGL377 **Medieval Myth and Modern Narrative**

Literary patterns characteristic of medieval myth, epic, and romance; their continuing vitality in modern works; and links between Medieval works like "The Prose Edda", "Beowulf", "The Morte D'Arthur", "The Volsunga Saga", and "Grettis Saga" and modern narratives like Tolkien's "The Lord of the Rings".

Contact department for information to register for this course.

ENGL378C **Special Topics in English; How to Make a Magazine: Introduction to Literary Publishing**

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

0101	Emily Mitchell	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0234

ENGL378W **Special Topics in English; Deep Time: Memory, Media, and Ecological Imagination in the Americas**

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

Cross-Listed with AASP398I. Credit for ENGL378W or AASP398I.

0101	Marisa Parham Th 3:30pm - 6:00pm	Seats (Total: 25) TWS 1320	

ENGL379R **Special Topics in Literature; The Jazz Paradigm**

Cross-listed with CMLT398D. Credit granted for CMLT398D or ENGL379R.

0201	Dennis Winston Class time/details on ELMs	Seats (Total: 25) ONLINE	

ENGL384 **Concepts of Grammar**

Introduction to the basic units of grammatical description; motivation for and nature of constituent structure and syntactic categories; fundamental grammatical concepts employed in the teaching and learning of languages.

0101	Michael Israel MW 5:00pm - 6:15pm	Seats (Total: 25) TWS 0234	

ENGL388C **Writing for Change**

(Perm req)

Prerequisite: Permission of ARHU-English Department . Recommended: ENGL101. Restriction: Requires application and references. Jointly offered with: ENGL292. Credit only granted for: ENGL292 or ENGL388C.

Service learning in collaboration with students at area high schools. Explores how writing can be a tool for social change. Participants serve as mentors, create a performance event concerning a pressing social issue, and compose reflections, literacy narratives, and publicity materials. Students also design individual projects that link course content and students' own professional interests.

0101	Justin Lohr TuTh 2:00pm - 3:15pm Tu 12:30pm - 1:45pm	Seats (Total: 18) TWS 3252 TWS 3134	 Lab

ENGL388D **Writing, Research, and Media Internships; Dickinson Electronic Archives**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Prerequisite: permission of the department. Contact Professor Martha Nell Smith, mnsmith@umd.edu

0101	Martha Nell Smith	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388E **Writing, Research, and Media Internships; BookLab Internship**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Prerequisite: permission of the department. Contact Professor Matthew Kirschenbaum, mgk@umd.edu.

0101	Matthew Kirschenbaum	Seats (Total: 5)
	Contact instructor or department for details.	
	Contact department or instructor for details.	

ENGL388M **Maryland General Assembly Writing Internship**

(Perm req)

Prerequisite: ENGL381 or HONR368A. Restriction: Minimum cumulative GPA of 3.0; and must have earned a minimum of 60 credits; and must be admitted to the MGA program. Cross-listed with: HONR379W. Credit only granted for: ENGL388M or HONR379W.

Experiential learning at the Maryland General Assembly (early January through early April). Interns participate in standard office tasks, research legislative issues, and draft legislative texts such as constituent letters, notes on bills, newsletters, policy memos, and testimony. Specific assignments vary according to the host legislator's needs and the intern's schedule.

Cross-listed with HONR379W. Credit granted for ENGL388M or HONR379W.

Click here for more information.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Contact instructor or department for details.	
	Students can only register for six credits.	

ENGL388P **English Careers Internship**

(Perm req)

Prerequisite: Permission of ARHU-English department. Repeatable to 12 credits if content differs. Additional information: Each enrolled credit equals 45 hours of on-site internship work.

Students receive credit for an internship of their choice that focuses at least half of its work on core English skills such as writing, editing, and research. Students secure their own internship placements. Course assignments include, for instance, an activity log, reflection papers, a supervisor evaluation, and a final portfolio of work.

Prerequisite: permission of the department. Contact english@umd.edu.

0101	Karen Lewis	Seats (Total: 15)
	Contact instructor or department for details.	

ENGL388T **Writing, Research, and Media Internships; Digital Humanities Research Assistantship**

(Perm req)

Explore career-facing opportunities on campus, in the D.C. metro area, and beyond. English internships can be individualized, working with businesses, not-for-profit organizations, state and federal governments, high schools, and incarcerated students. We also offer structured internship pathways with the Maryland General Assembly Program, the Emily Dickinson Electronic Archives, the Writing Center, our Undergraduate Teaching Assistant Program, and BookLab, our makerspace and letterpress printing studio.

Cross-listed with MITH388. Credit only granted for MITH388 or ENGL388T. Prerequisite: permission of department. Repeatable to 12 credits.

0101	Jeffrey Moro	Seats (Total: 10)
	Contact instructor or department for details.	

ENGL388V **Undergraduate Teaching Assistants in English**

(Perm req)

Prerequisite: Permission of the ARHU-English department. Repeatable to 12 credits. Additional information: Students should consult with the UTA Coordinator to determine the number of enrollment credits.

A weekly teaching practicum and concurrent internship as an undergraduate teaching assistant in an English course. Students will explore the theories and best practices of teaching and learning in the various fields of the English discipline, particularly writing and literary studies. The emphasis is on creating inclusive classrooms and working with diverse learners and is grounded in theories of critical pedagogy. Students will apply principles of learning theory to develop and facilitate learner-centered lessons and discussions. They will also study composition pedagogy in preparation for responding to student writing in the course for which they are an assistant.

Prerequisite: permission of department. Repeatable to 12 credits. Contact Lyra Hilliard, lyrahill@umd.edu. Students taking ENGL388V for the first time should register for either section 0101 or 0401 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001 or 3001 for 3 credits."

0101	Katherine Joshi W 3:30pm - 5:00pm	Seats (Total: 20) LEF 1220
0401	Lyra Hilliard Tu 3:30pm - 5:00pm	Seats (Total: 20) ASY 3221
2001	Katherine Joshi Contact instructor or department for details.	Seats (Total: 10)
3001	Lyra Hilliard Contact instructor or department for details.	Seats (Total: 10)

ENGL388W **Writing Center Internship**

(Perm req)

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: SPAN388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/ internship. Cross-listed with SPAN388W. Credit only greanted for ENGL388W or SPAN388W. Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course a gain in subsequent semesters, students should register for 2001.

0101	Thomas Earles M 3:30pm - 6:00pm *Students should register for four credits.*	Seats (Total: 20) TWS 0224
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

ENGL390 **Science Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Click here for more course information.

0201	Zoe Alsop MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0224
0301	Katherine Oneill MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1105
0401	Katherine Oneill MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1105
0501	Katherine Oneill MWF 1:00pm - 1:50pm	Seats (Total: 19) ASY 3221
1001	Robin Allen-Klein TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0232
1101	Robin Allen-Klein TuTh 9:30am - 10:45am	Seats (Total: 19) KNI 1105
1401	Anna Josephson TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0121
1501	Anna Josephson TuTh 3:30pm - 4:45pm	Seats (Total: 19) KEY 0121
1701	Richard Reynnells Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1320
1801	Richard Reynnells W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1320

ENGL390H **Science Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Restricted to students in the University or departmental Honors program.

0101	Marybeth Shea MWF 9:00am - 9:50am	Seats (Total: 19) ONLINE
0301	Marybeth Shea MWF 11:00am - 11:50am	Seats (Total: 19) ONLINE

ENGL391 **Advanced Composition**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

0001	John Rendeiro MWF 8:00am - 8:50am	Seats (Total: 19) ASY 3219
0101	John Rendeiro MWF 9:00am - 9:50am	Seats (Total: 19) ASY 3219
0301	Sarah Goodson MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0232
0402	Mark Forrester MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0232
0601	Mark Forrester MW 2:00pm - 3:15pm	Seats (Total: 19) ASY 3221
0701	Peter Witte MW 3:30pm - 4:45pm	Seats (Total: 19) KEY 0123
1001	Christopher Crane TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 3132
1101	Christopher Crane TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1122
1202	Peter Grybauskas TuTh 11:00am - 12:15pm	Seats (Total: 19) EDU 3236
1401	Peter Grybauskas TuTh 2:00pm - 3:15pm	Seats (Total: 19) KNI 1103

1505	Michael Israel TuTh 5:00pm - 6:15pm	Seats (Total: 19) ASY 3217
1701	Mark Fitzgerald Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0230
1901	Mark Fitzgerald Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
9001	Melvette Davis Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Alan Montroso Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Marina Ellis Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL391H **Advanced Composition**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Restricted to students in the University or departmental Honors program.

Click here for more information on professional writing courses.

0201	Mark Forrester MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1320

ENGL392 **Legal Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Conventions of legal writing and research. Students learn how to read and write about cases, statutes, or other legislation; how to apply legal principles to fact scenarios; and how to present a written analysis for readers in the legal profession. Assignments may include the law-school application essay, case briefs, legal memos, and client letters.

Click here for more information on professional writing courses.

1101	John Kim TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1321
1201	John Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) ASY 3221
1301	Janet Shim TuTh 12:30pm - 1:45pm	Seats (Total: 19) ASY 3219
1601	Esthus Amos M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1701	Esthus Amos Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1801	Sara Faradji W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232

ENGL393 **Technical Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more information on professional writing courses.

0001	Patrick Nelson MWF 8:00am - 8:50am	Seats (Total: 19) TWS 1320

0202	Sarah Goodson MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1105
0301	Joan Mooney MWF 11:00am - 11:50am	Seats (Total: 19) ASY 3219
0401	Joan Mooney MWF 12:00pm - 12:50pm	Seats (Total: 19) ASY 3219
0502	Sarah Goodson MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1105
0601	Aubrey Zinn MWF 2:00pm - 2:50pm	Seats (Total: 19) KNI 1103
0701	Aubrey Zinn MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
1102	Gregory Deinert TuTh 9:30am - 10:45am	Seats (Total: 19) LEF 1222
1202	Amanda Fiore TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 3136
1401	Amanda Fiore TuTh 2:00pm - 3:15pm	Seats (Total: 19) KNI 1206
1505	Amanda Fiore TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234
1602	Kelly Cresap M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1313
1802	Kelly Cresap W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1321
1902	Patrick Nelson Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
9001	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE

9002	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE

9016	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9017	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9020	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9021	Ruth Phillips Class time/details on ELMs	Seats (Total: 19) ONLINE
9022	Joshua Buursma Class time/details on ELMs	Seats (Total: 19) ONLINE
9023	Joshua Buursma Class time/details on ELMs	Seats (Total: 19) ONLINE
9024	Shannon Zellars Strohl Class time/details on ELMs	Seats (Total: 19) ONLINE
9025	Shannon Zellars Strohl Class time/details on ELMs	Seats (Total: 19) ONLINE
9026	Jeannette Schollaert Class time/details on ELMs	Seats (Total: 19) ONLINE
9027	Sara Faradji Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG1	Ruth Phillips Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 10) ONLINE

ESG2	Sarah Goodson Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 18) ONLINE
ESM1	Ruth Phillips Class time/details on ELMs *Restricted to Students for Mechanical and Electrical Engineering at USMSM.*	Seats (Total: 9) ONLINE
ESM2	Sarah Goodson Class time/details on ELMs *Restricted to Students in Mechanical and Electrical Engineering at USMSM.*	Seats (Total: 1) ONLINE

ENGL393H **Technical Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Restricted to students in the University or departmental Honors proram.

Click here for more information on professional writing courses.

0502	Kara Pleasants MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0232

ENGL393Q **Technical Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

3001	Alexandra Calloway F 9:00am - 11:40am *The writing of technical papers and reports with additional service learning hours required to be completed as part of the course.*	Seats (Total: 19) TWS 3252

ENGL393X **Technical Writing**

(Perm req)

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more information on professional writing courses.

1401	Sonney Wolfe TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 1103
	Restricted to students for whom English is a second language. For permission contact Grace Crussiah gjc@umd.edu.	

ENGL394 **Business Writing**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Intensive practice in the forms of written communication common in the business world: letters, memos, short reports, and proposals. Focus on the principles of rhetoric and effective style.

Click here for more information on professional writing courses.

0202	Kara Pleasants MWF 10:00am - 10:50am	Seats (Total: 19) TWS 3136
0302	Kara Pleasants MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0230
0401	Aubrey Zinn MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0230
0501	Aubrey Zinn MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0224
0601	Anna Szczepaniec-Bialas MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
0702	Anna Szczepaniec-Bialas MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0232
0801	Anna Szczepaniec-Bialas MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0232
1102	Joseph Wappel TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 0122
1201	Joseph Wappel TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0224

1202	Adam Lloyd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1320
1301	Joseph Wappel TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0119
1302	Adam Lloyd TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1320
1401	Thomas Lowderbaugh TuTh 2:00pm - 3:15pm	Seats (Total: 19) ASY 3221
1402	Joseph Wappel TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 1321
1502	Sonney Wolfe TuTh 3:30pm - 4:45pm	Seats (Total: 19) KEY 0120
1601	Mrim Boutla M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1320
1801	Jonathan Rick W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
9001	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Eric Bond Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Nasim DarouieHaghighi Class time/details on ELMs	Seats (Total: 19) ONLINE

9007	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Sajeela Yaqub Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Sajeela Yaqub Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Erica Cochran Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Erica Cochran Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9017	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Robert Harris Class time/details on ELMs	Seats (Total: 19) ONLINE
9020	Kara Pleasants Class time/details on ELMs	Seats (Total: 19) ONLINE

9021	Eric Bond Class time/details on ELMs	Seats (Total: 19) ONLINE
9022	Eric Bond Class time/details on ELMs	Seats (Total: 19) ONLINE
9023	John Rendeiro Class time/details on ELMs	Seats (Total: 19) ONLINE
9024	John Rendeiro Class time/details on ELMs	Seats (Total: 19) ONLINE
9025	Shannon Zellars Strohl Class time/details on ELMs	Seats (Total: 19) ONLINE
9026	Shannon Zellars Strohl Class time/details on ELMs	Seats (Total: 19) ONLINE
9027	Nicole Cuffy Class time/details on ELMs	Seats (Total: 19) ONLINE
9028	Nicole Cuffy Class time/details on ELMs	Seats (Total: 19) ONLINE
9029	Nasim DarouieHaghighi Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG2	David Miles Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 19) ONLINE
ESG3	David Miles Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 19) ONLINE
ESG4	Holly Smith TuTh 11:00am - 12:15pm *Restricted to students at Shady Grove.*	Seats (Total: 19) Location: TBA

ESG5	Holly Smith TuTh 12:30pm - 1:45pm *Restricted to students at Shady Grove.*	Seats (Total: 19) BLD2 2052

ENGL395 **Writing for Health Professions**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focus on accommodating health-related technical material and empirical studies to lay audiences, and helping writers to achieve stylistic flexibility and correctness.

Click here for more information on professional writing courses.

0101	Michael Schmidt MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0230
0201	Michael Schmidt MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1321
0202	Michelle Moncrieffe MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0230
0301	Zoe Alsop MWF 11:00am - 11:50am	Seats (Total: 19) ASY 3217
0401	Elizabeth Marshall MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0119
0501	Elizabeth Marshall MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0124
0601	Justin Lohr MW 2:00pm - 3:15pm	Seats (Total: 19) KEY 0119
0701	Robert Lucci MW 3:30pm - 4:45pm	Seats (Total: 19) KEY 0121
0801	Ross Angelella W 5:00pm - 6:15pm M 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105 ONLINE

1002	Gregory Deinert TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1313
1101	Justin Lohr TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1105
1201	Justin Lohr TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0223
1301	Elizabeth Chang TuTh 12:30pm - 1:45pm	Seats (Total: 19) LEF 1201
1302	Kisa Lape TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3252
1401	Kisa Lape TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 1105
1501	Anne Bolgiano TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
1505	James Goodwin TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0230
1601	Aysha Jawed M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0224
1701	Kevin Wisniewski Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1901	Aysha Jawed Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0224
ESG1	Nasim DarouieHaghighi Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 19) ONLINE

ENGL398A **Writing for the Arts**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the situations and genres in which working professionals (practitioners, advocates, administrators, and educators) write about art, culture, and artists. The course covers the complex process that writers need to learn, including how to accommodate information to specific audiences, how to use stylistic and visual devices to make information more accessible, and how to edit their own work as well as that of their peers. Assignments parallel the writing demands that students will face in the workplace, including analyzing and composing artist statements, an arts manifesto, art education guides, press releases about artists and their work, critical reviews of exhibits and performances, and proposals to funding agencies and foundations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more information on professional writing courses.

1001	Caroline Wilkins TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1106
1101	Emily Flamm TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1215
1201	Emily Flamm TuTh 11:00am - 12:15pm	Seats (Total: 19) LEF 1171
1601	Gerard Holmes M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1801	Dennis Winston W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1313

ENGL398B **Writing for Social Entrepreneurship**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students who want to develop the skills needed to start a successful social venture--a start-up business with a social mission or a new nonprofit program. The course centers on a major writing project such as a business plan, a website design plan, a fundraising proposal, or a concept paper for a new nonprofit organization. Students produce other communication projects that social entrepreneurs use to develop their businesses and nonprofits, such as presentations or pitches to prospective investors/donors, marketing materials, and a job announcement. Students will learn from local social entrepreneurs who share their experiences of using writing to succeed in the field.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This c ourse satisfies the professional writing requirement.

Click here for more course information.

0601	Eric Thiel MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0230
0701	Eric Thiel MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 1320
0801	Alexandra Omogbadegun MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1320
1401	Brandee Pettus TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
1702	Mrim Boutla Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 3136
1901	Roxanne Clements Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1313

ENGL398C **Writing Case Studies and Investigative Reports**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students interested in becoming police investigators, educators, case workers, insurance adjusters, nurses, or program evaluators, or in entering branches of the social sciences that investigate cases and value reports based on accurate descriptions and compelling narratives. Such reports must be factual and yet useful to decision makers, unbiased and yet focused. Students study genres and language skills from careful summarizing to convincing storytelling.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

0801	Kevin Wisniewski MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0230
0901	Kevin Wisniewski MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 3252
1002	Kathleen Orr TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1105

1101	Kathleen Orr TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1224
1201	Kathleen Orr TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0124

ENGL398E **Writing About Economics**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the characteristic genres of writing in modern economics, including theoretical and empirically based journal articles, reports for government and commercial clients, and economic information presented to a variety of non-professional audiences, such as citizen-oriented and public policy organizations. Students learn how to analyze these documents rhetorically and how to communicate economic information using the content, arrangement, style, and visual graphics best suited to the purposes and standards of particular audiences. Core assignments include a genre-based journal and document analysis, presentations on economics-related topics for both economists and non-professional audiences, and a major research-based writing project for an audience outside of the classroom.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

0801	Dylan Carpenter MW 5:00pm - 6:15pm	Seats (Total: 19) ASY 3219

ENGL398L **Scholarly Writing in the Humanities**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines scholarship in the humanities as a genre of professional writing and investigates the norms and procedures of advanced academic writing. Assignments parallel the writing demands that students will face in the academic workplace, including a graduate school application essay, a genre review, an annotated bibliography, a journal article, and an oral presentation of article subject matter.

Prerequisite:60 credits and completion of ENGL101. This course satisfies the professional writing requirement.An advanced composition class focusing on the norms and procedures of advanced academic writing.

Click here for more information.

0301	Mark Forrester MWF 11:00am - 11:50am	Seats (Total: 19) ASY 3221

ENGL398N **Writing for Non-Profit Organizations**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines professional writing and communication work in the non-profit sector. Students will analyze the audiences and document genres that they may encounter in real-world non-profit work and will learn how to compose many of these documents, from press releases and other public relations material to position papers, reports, and grant proposals. Students may also have the opportunity to add a service-learning component to the course by working with and for an area non-profit.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

0301	Michael Schmidt MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1320
0501	Michael Schmidt MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3136
0601	Kevin Wisniewski MW 2:00pm - 3:15pm	Seats (Total: 19) LEF 1221
1001	David Todd TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0224
1101	David Todd TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0230
1102	Rebecca Holden TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0224
1201	David Todd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0230
1301	Rebecca Holden TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0224
1401	Rachel Cote TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0230

ENGL398R **Writing Non-Fictional Narratives**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Approaches nonfiction narrative-a kind of writing influenced by fiction, magazine journalism, memoir, and personal essay--as a form of professional writing used in publishing and a range of careers involving proposal writing, work documentation, lobbying, social marketing, and political commentary, among others. Students learn to use many of the same tools as fiction writers, such as dialogue, vivid description, developing characters, nonlinear structure, and shifts in tense, time, and points of view. They also learn how to edit their own work as well as that of their peers, doing multiple revisions of the major assignments for a final portfolio. Major assignments include essays targeted to specific publications, query letters, audience analysis, and a publisher analysis.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

1001	Lyra Hilliard TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1320
1101	Pamela Gerhardt TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0232
1102	Danuta Hinc TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3136
1201	Pamela Gerhardt TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0232
1202	Pamela Gerhardt TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0232
1501	Pamela Gerhardt TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0232
1505	John Tobin TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0224

ENGL398V **Writing About the Environment**

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for those aspiring to work in a variety of fields that influence and are influenced by environmental science, including public policy, advocacy, science, and industry. Students learn to apply principles of technical writing to a range of scenarios and issues particular to the intersection of scientific knowledge and environmental policy. Writing audiences range from the public to decision-makers. The course emphasizes writing both within and across disciplines to enlist research for practical contexts.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

Click here for more course information.

1201	Heidi Scott TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1105
1301	Heidi Scott TuTh 12:30pm - 1:45pm	Seats (Total: 19) KNI 1103
1401	Jesse Brooks TuTh 5:00pm - 6:15pm	Seats (Total: 19) JMZ 1215
1501	Jesse Brooks TuTh 3:30pm - 4:45pm	Seats (Total: 19) ASY 3219
1701	Jesse Brooks Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1313
1801	Jesse Brooks Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1320

ENGL403 **Shakespeare: The Early Works**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Close study of selected works from the first half of Shakespeare's career. Generic issues of early histories, comedies, tragedies. Language, theme, dramatic technique, sources, and early modern English social-historical context.

0101	Karen Nelson MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 1321

ENGL409C **Study Abroad Special Topics IV; Shakespeare's Italian Plays**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409K **Study Abroad Special Topics IV; A Moveable Feast: Writing about Food**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409L **Study Abroad Special Topics IV; Literature of London**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL416 **Literature of the Eighteenth Century, 1700-1750**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

British literary traditions, including the poetry of Pope, the prose of Swift, the correspondence of Montagu, the drama of Gay, and early novels by Defoe, Richardson, and Fielding.

0101	Laura Rosenthal TuTh 9:30am - 10:45am	Seats (Total: 20) TWS 1313

ENGL422 **English Victorian Literature**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

A survey of English literature of the Victorian period. Writers may include Arnold, Browning, Tennyson, Dickens, George Eliot, Carlyle, Ruskin, Newman, and Wilde.

0101	Gerard Holmes TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 1313

ENGL428T **Seminar in Language and Literature; Imagining Catastrophe**

(Perm req)

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended prima ily for students in English Honors Program. English majors with strong academic records may also apply. Permission from the Director of Honors required.

0101	Gerard Passannante MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 1313

ENGL428W **Seminar in Language and Literature; Women Writing Race in the Early British Transatlantic**

(Perm req)

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended primarily for students in English Honors Program. English majors with strong academic records may also apply. Permission from the Director of Honors required.

0101	Kim Coles	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ARC 1123

ENGL429 **Independent Research in English**

(Perm req)

An advanced independent research project for qualified students, supervised by an English faculty member, on a topic not ordinarily covered in available courses.

Prerequisite: ENGL301 and two English courses, excluding Fundamental Studies requirement.

Contact department for information to register for this course.

ENGL435 **American Poetry: Beginning to the Present**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Selections of American poetry, from Bradstreet to contemporary free verse. Authors such as Whitman, Dickinson, Bishop, Hughes, Rich, and Frost.

Cross-listed with LGBT459M. Credit granted for ENGL435 or LGBT459M.

Contact department for information to register for this course.

ENGL437 **Contemporary American Literature**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Prose, poetry, drama of living American writers. Current cultural and social issues.

Contact department for information to register for this course.

ENGL439D **Spotlight on Major Writers; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English cours es in literature; or permission of ARHU-English department. Cross-listed with LGBT448Y and WGSS498Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Martha Nell Smith	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	TWS 1313

ENGL452 **English Drama From 1660 to 1800**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Restoration and eighteenth-century drama, with special attention to theater history, cultural influences, concepts of tragedy, comedy, farce, parody, and burlesque, as well as dramatic and verbal wit.

0101	Liam Daley	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	EDU 2102

ENGL456 **The Nineteenth-Century English Novel**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Surveys major novels of the period. Attention to narrative form and realism; representations of gender and class; social contexts for reading, writing and publishing. Authors such as Austen, Bronte, Dickens, George Eliot, Trollope.

Contact department for information to register for this course.

ENGL457 **The Modern Novel**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Modernism in the novel of the twentieth century. Such writers as Joyce, Lawrence, Murdoch, James, Forster, Faulkner, Hemingway, Fitzgerald, Ellison, Welty, Nabokov and Malamud.

0101	Brian Richardson	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1105

ENGL459C **Selected Topics in LGBTQ+ Literatures and Media; Life Writings in Different Media**

Advanced study of a topic pertinent to literary and cultural expressions of LGBTQ+ identities, positionalities, and analytics through an exploration of literature, art, and/or media.

Repeatable to 9 credits if content differs. Crosslisting with LGBT459D. Credit only granted for ENGL459C or LGBT459D.

0101	John Tobin	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1313

ENGL462 **Folksong and Ballad**

A cross-section of American folk and popular songs in their cultural contexts; artists from Bill Monroe to Robert Johnson.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Barry Pearson	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 1321

ENGL469D **The Craft of Literature: Creative Form and Theory; Shapeshifting and Genre Theft: New Literary Forms**

(Perm req)

Examines various forms of poetry and/or fiction, emphasizing the practice of making literary art and the aesthetic and theoretical approaches that define it. Students will practice the elements of literary craft, producing and experimenting with a wide range of forms and conventions in poetry and/or fiction. They will also produce critical work that articulates and contextualizes theoretical approaches to the making of literary art.

Prerequisite: Two English courses in literature or creative writing and have completed a 200-level creative writing workshop in ENGL or permission of ARHU-English Department. Repeatable to 9 credits if content differs.

0101	Emily Flamm	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 1320

ENGL475 **Postmodern Literature**

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

The origins and ongoing development of postmodern literature. Aspects of the "postmodern condition," such as the collapse of identity, the erasure of cultural and aesthetic boundaries, and the dissolution of life into textuality. The novel and other genres and media.

0101	Christina Walter	Seats (Total: 15)
	MW 3:30pm - 4:45pm	TWS 1321

ENGL478C **Selected Topics in Literature before 1800; Good Grades: The Literature of Meritocracy and its Discontents**

Advanced study of key topics in literary works from earlier historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Gerard Passannante	Seats (Total: 15)
	MW 5:00pm - 6:15pm	TWS 1321

ENGL479F **Selected Topics in Literature after 1800; Walking and Writing: The Plays, Screenplays and Teleplays of Aaron Sorkin**

Advanced study of key topics in literary works from later historical periods.

Prerequisite: Two English courses in literature; or pe rmission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Michael Olmert	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	TWS 1321

ENGL487 **Principles and Practices of Rhetoric**

A seminar examining foundational concepts and approaches in the theory and practice of rhetoric in civic, professional, academic, and interpersonal settings; focusing on key issues in persuasion, argumentation, and eloquence in historical and contemporary contexts.

0101	Cecilia Shelton	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 1105

ENGL494 **Editing and Document Design**

Prerequisite: ENGL393 or ENGL391; or students who have taken courses with comparable content may contact the department.

Principles of general editing for clarity, precision and correctness. Applications of the conventions of grammar, spelling, punctuation and usage, and organization for logic and accuracy. Working knowledge of the professional vocabulary of editing applied throughout the course.

0101	Blake Wilder	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 1105

ENGL495 **Independent Study in Honors**

(Perm req)

Prerequisite: ENGL373 and ENGL370. Restriction: Must be in English Language and Literature program; and candidacy for honors in English.

Completion and presentation of the senior honors project.

Contact department for information to register for this course.

ENGL497 **English at Work**

Prerequisite: ENGL301; and an ENGL course at the 300-level or higher. Restriction: Must have earned a minimum of 60 credits.

Examines how English majors put their academic knowledge and skills to work in professional workplaces after graduation. Students learn strategies to research careers, and they shadow a person in a career of interest for a day. Students learn to compose different professional genres to write and speak about and for professional development and advancement, including inquiry letters, technical descriptions, professional portfolios, and elevator pitches. Students will critically examine the learning they have done in their undergraduate coursework and compose a vision for bringing that learning to life in their future work.

0101	Blake Wilder	Seats (Total: 20)
	MWF 11:00am - 11:50am	TWS 1321
	Restricted to students in English Language and Literature, Secondary Educ: English Language Arts or Secondary Educ: English Language Arts (Pre).	

ENGL498 **Advanced Fiction Workshop; Advanced Fiction Workshop**

(Perm req)

An advanced class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and to colleagues' fiction, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

Prerequisite: ENGL396 or ENGL352; or permission of department.

0101	Rachel Waugh Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3252
0201	Sabrina Islam M 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134
0301	Nicole Cuffy Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3136

ENGL499 **Advanced Poetry Workshop; Advanced Poetry Workshop**

(Perm req)

An advanced class in the making of poetry. Intensive discussion of students' own poems. Readings include both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, and attendance at poetry readings.

Prerequisite: ENGL397 or ENGL353; or permission of department.

0101	Lindsay Bernal Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3136

ENGL611 **Approaches to College Composition**

(Perm req)

Prerequisite: Permission of ARHU-English department. Additional information: Required for graduate assistants (optional to other graduate students).

A seminar emphasizing rhetorical and linguistic foundations for the handling of a course in freshman composition.

0101	Jessica Enoch Th 12:00pm - 2:30pm	Seats (Total: 14) TWS 3134

ENGL621 **Readings in Renaissance English Literature**

For ENGL majors only.

0101	Scott Trudell W 6:30pm - 9:00pm	Seats (Total: 14) TWS 3132

ENGL626 **Readings in American Literature before 1865**

For ENGL majors only.

0101	Martha Nell Smith Tu 3:30pm - 6:00pm	Seats (Total: 14) TWS 3132

ENGL648 **Contemporary American Literature**

A survey of American literature in the 21st Century.

For ENGL majors only.

0101	Lee Konstantinou W 3:30pm - 6:00pm	Seats (Total: 14) TWS 3252

ENGL658D **Readings in Multi-Ethnic Literatures of the Americas; Caribbean Critical Theory**

(Perm req)

Highlights the cultural diversity of American literatures from various periods, including Latino/a, Native American, Asian American, and African American literatures within and beyond the United States.

Restriction: Permission of English Department. Repeatable to 9 credits if content differs. Cross-listed with CMLT679M. Credit only granted for ENGL658D or CMLT679M.

0101	John Drabinski Tu 6:30pm - 9:00pm	Seats (Total: 14) TWS 3252

ENGL679 **Professional and Career Mentoring for Master's Students**

(Perm req)

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for MA and MFA students from a faculty member.

Contact department for information to register for this course.

ENGL688 **Poetry Workshop; Poetry Workshop**

(Perm req)

Poetry workshop.

0101	Joshua Weiner W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3134

ENGL689 **Fiction Workshop; Fiction Workshop**

(Perm req)

Fiction workshop.

0101	Rion Scott W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3250

ENGL699 **Independent Study**

(Perm req)

Contact department for information to register for this course.

ENGL708E **Seminar in Rhetoric; Black Feminism as Methodology in Rhetoric and Writing Studies**

(Perm req)

Topics in rhetoric: history of rhetorical theory, modern rhetorical theory, rhetorical interpretation, composition theory, rhetoric of social groups.

0101	Cecilia Shelton Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3132

ENGL759D **Seminar in Literature and the Other Arts; Booklab: History and Futures of the Book**

(Perm req)

0101	Matthew Kirschenbaum Tu 3:30pm - 6:00pm	Seats (Total: 10) TWS 3250

ENGL788 **Studies in Poetic Form**

(Perm req)

0101	Lillian-Yvonne Bertram M 3:30pm - 6:00pm	Seats (Total: 11) TWS 3136

ENGL789 **Form and Theory in Fiction**

(Perm req)

A variety of prose modes (mediations, psychological studies, reportage myths, collage, magic realism, satire, etc.). Some of the writers to be read include Kafka, Cather, Barth, Kundera, and Barthelme.

0101	Emily Mitchell M 3:30pm - 6:00pm	Seats (Total: 11) TWS 3252

ENGL798B **Critical Theory Colloquium**

(Perm req)

An intensive advanced exploration of current problems and issues in critical theory.

0101	John Drabinski	Seats (Total: 15)
	Contact instructor or department for details.	

ENGL799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ENGL878 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL879 **Professional Mentoring for Doctoral Students**

(Perm req)

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for PhD students from a faculty member.

Contact department for information to register for this course.

ENGL888 **Practicum in English Studies**

0112	Sara Wilder	Seats (Total: 20)
	Contact instructor or department for details.	

ENGL898 **Pre-Candidacy Research**

(Perm req)

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENMA Engineering, Materials Spring 2024

ENMA165 **Introduction to Programming with Python**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENEE140 or ENMA165.

Introduces concepts of computer programming using Python from the point-of-view of engineers and scientists (as opposed to computer science). Students will learn the fundamentals of writing and implementing code, and exposed to practical aspects of programming as may be relevant to their studies and careers in the materials field. Topics/activities of note include data management and analysis, laboratory-related scripting, simple automation, and introduction to computational materials concepts.

0101	Jonathan Guyer TuTh 5:00pm - 6:15pm	Seats (Total: 35) EGR 2154

ENMA300 **Introduction to Materials Engineering**

(Perm req)

Prerequisite: ENES100; and permission of ENGR-Materials Science & Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENME382. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Carlos Rios Ocampo MW 5:00pm - 6:15pm	Seats (Total: 100) CHE 2110
0201	Luz Martinez-Miranda TuTh 9:30am - 10:45am	Seats (Total: 100) KEB 1110
0301	Luz Martinez-Miranda TuTh 12:30pm - 1:45pm *Restricted to students majoring in Materials Science and Engineering.*	Seats (Total: 30) CHM 2201

ENMA301 **Modern Materials Engineering**

(Perm req)

Prerequisite: ENMA180; or students who have taken courses with comparable content may contact the department. And ENMA300; and permission of ENGR-Materials Science & Engineering department.

Five topical areas will be presented, each leading up to specific applications that have recently come to market or are currently experiencing heavy research and development. The goal of each module will be to introduce the basic materials science principles necessary to understand these new areas.

0101	Isabel Lloyd TuTh 2:00pm - 3:15pm	Seats (Total: 46) CHE 2118

ENMA417 **Li-Ion Battery Design, Fabrication and Testing**

Restriction: Permission of ENGR-Materials Science & Engineering department.

Students learn the basics of Li-ion battery fabrication through hands-on manufacturing of Li-ion cells. Students will create cells using different active materials and different electrode loadings, then test their batteries to understand how different electrode designs affect cell performance. Students will gain experience with standard constant current-constant voltage cycling tests, and will also learn about electrochemical impedance spectroscopy (EIS), cyclic voltammetry (CV) and other electrochemical testing methods as time allows. Topical issues related to materials for the battery field will also be discussed.

0101	Eric Wachsman, Gibson Scisco	Seats (Total: 12)	
	MF 10:00am - 11:30am	CHE 1140	Lab

ENMA421 **Design of Composites**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA421 or ENMA489A. Formerly: ENMA489A.

Fundamentals of design, processing and selection composite materials for structural applications will be covered. The topics include a review of all classes of materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods including consideration of chemical reactions and stability of the interfaces, and materials selection considerations.

0101	Sreeramamurthy Ankem	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	EGR 3106

ENMA426 **Reliability of Materials**

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA426 or ENMA489R. Formerly: ENMA489R.

Students are taught the basic degradation mechanisms of materials, through the understanding of the physics, chemistry, mechanics of such mechanisms. Mechanical failure mechanisms concentrate on fatigue, and creep. Chemical failure mechanisms emphasize corrosion and oxidation. Physical mechanisms such as diffusion, electromigration, defects and defect migration, surface trapping mechanisms, charge creation and migration are also included.

0101	Aristos Christou	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 3114

ENMA434 **Quantum Mechanics for Engineers**

(Perm req)

Prerequisite: MATH241 and PHYS270. Restriction: Permission of ENGR-Materials Science & Engineering department.

The purpose of this course is to provide engineering students with a foundational understanding of quantum mechanics and its practical applications in the field of materials science. This course will equip students with the essential knowledge and skills required to harness the principles of quantum mechanics in their pursuit of innovative solutions in materials science and engineering.

0101	You Zhou	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	CHE 2145

ENMA460 **Introduction to Solid State Physics**

(Perm req)

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: PHYS431. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Ichiro Takeuchi	Seats (Total: 20)
	MW 5:00pm - 6:15pm	PHY 4221

ENMA461 **Thermodynamics of Materials**

(Perm req)

Prerequisite: ENMA300. Restriction: Junior standing or higher.

Thermodynamic aspects of materials; basic concepts and their application in design and processing of materials and systems. Topics include: energy, entropy, adiabatic and isothermal processes, internal and free energy, heat capacity, phase equilibria and surfaces and interfaces.

0101	Yifei Mo	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	EGR 1108

ENMA463 **Macroprocessing of Materials**

Prerequisite: ENMA300. Restriction: Junior standing or higher.

Processing of modern, bulk engineering materials. Raw materials, forming, firing, finishing and joining. More emphasis on metals and ceramics than polymers.

0101	Shenqiang Ren	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMP 1202

ENMA465 **Microprocessing Materials**

(Perm req)

Prerequisite: ENMA300. Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA363, ENMA489B, or ENMA465. Formerly: ENMA363.

Micro and nanoscale processing of materials. Emphasis on thin film processing for advanced technologies.

0101	Gary Rubloff MW 3:30pm - 4:45pm	Seats (Total: 55) EGR 1108

ENMA470 **Materials Selection for Engineering Design**

(Perm req)

Prerequisite: Permission of ENGR-Materials Science & Engineering department. Restriction: Junior standing or higher. Credit only granted for: ENMA 470 or ENMA 489O. Formerly: ENMA 489O.

Students will learn about materials classes, properties, limitations and applications and the methodology of materials selection in engineering design.

0101	Gianna Valentino TuTh 9:30am - 10:45am	Seats (Total: 40) EGR 0135

ENMA486 **Seminar in Materials Science and Engineering**

Restriction: Must be in Engineering: Materials Science program.

Current research in materials science and engineering and related fields. The lectures are presented by scientists and engineers from academia, national laboratory, US government, etc., in the format of seminars.

0101	Ji-Cheng Zhao W 3:30pm - 5:00pm	Seats (Total: 3) CHE 2110

ENMA489M **Selected Topics in Engineering Materials; Advanced Manufacturing Laboratory (AML)**

(Perm req)

Selected topics of current importance in materials science and engineering.

Credit only granted for ENEE419M, ENMA489M, or BIOE489J. An interdisciplinary course designed to provide students with an overview of key processes, technology, and manufacturing techniques involved in fabricating advanced devices and systems. Students will be exposed to state-of-the-art fabrication technologies including soft lithography, 3Dprinting, hybrid manufacturing, material functionalization, and systems integration. In addition to developing a theoretical understanding in the classroom, students will gain hands-on fabrication and characterization experience of systems that can interface with complex environments.

0101	Kevin Daniels	Seats (Total: 4)	
	TuTh 12:30pm - 1:20pm	EGR 2116	
	F 9:00am - 11:50am	KEB 1135	Lab

ENMA490 **Materials Design**

Prerequisite: Minimum grade of C- in ENMA487. Restriction: Senior standing.

Capstone design course. Students work in teams on projects evaluating a society or industry based materials problem and then design and evaluate a strategy to minimize or eliminate the problem; includes written and oral presentations.

Class meets in Clark Hall Innovation lab, Bay area 5 and 6.

0101	Raymond Phaneuf	Seats (Total: 41)
	TuTh 3:30pm - 5:30pm	CHE 2136

ENMA620 **Polymer Physics**

(Perm req)

Prerequisite: ENMA471; or permission of instructor. Restriction: Permission of ENGR-Materials Science & Engineering department.

The thermodynamics, structure, morphology and properties of polymers. Developing an understanding of the relationships between theory and observed behavior in polymeric materials.

0101	Mohamad Al-Sheikhly	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	EGR 2116

ENMA621 **Advanced Design Composite Materials**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA621 or ENMA698A. Formerly: ENMA698A.

Fundamentals of design, processing, and selection of composite materials for structural applications are covered. The topics include a review of all classes of engineering materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods- including consideration of chemical reactions, stability of the interfaces and material selection.

0101	Sreeramamurthy Ankem	Seats (Total: 10)
	MWF 1:00pm - 1:50pm	EGR 3106

ENMA630 **Advanced Nanosized Materials: Synthesis and Utilization**

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA630 or ENMA6998G. Formerly: ENMA698G.

This course covers fundamental theory and fabrication-related aspects of nanoscale materials science. Topics: Quantization of energy level in solids and its effect on properties. Nucleation, growth and aging. Nano-epitaxy. Anisotropic crystal engineering. Electrical Transport. Nano-magnetism. Properties of carbon nanotubes. Applications in electronics, optics, data storage, energy and biomedicine.

Contact department for information to register for this course.

ENMA661 **Kinetics of Reactions in Materials**

(Perm req)

Prerequisite: ENMA660. Restriction: Permission of ENGR-Materials Science & Engineering department.

The theory of thermally activated processes in solids as applied to diffusion, nucleation and interface motion. Cooperative and diffusionless transformations. Applications selected from processes such as allotropic transformations, precipitation, martensite formation, solidification, ordering, and corrosion.

0101	Oded Rabin	Seats (Total: 28)
	TuTh 5:00pm - 6:15pm	CHE 2145

ENMA663 **Macroprocessing of Materials**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA463. Credit only granted for: ENMA463 or ENMA663..

Processing of modern, bulk engineering materials: raw materials, forming, firing, finishing and joining. Note: More emphasis will be placed on metals and ceramics than polymers.

0101	Shenqiang Ren	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	JMP 1202

ENMA671 **Defects in Materials**

(Perm req)

Restriction: Permission of ENGR-Materials Science & Engineering department.

Fundamental aspects of point (electronic and atomic) defects, dislocations, and surfaces and interfaces in materials. Defect interactions, defect models, and effects of zero, one and two dimensional defects on material behavior.

0101	Lourdes Salamanca-Riba	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	CHE 2118

ENMA688 **Seminar in Materials Science and Engineering**

Current research in materials science and engineering and related fields.

0101	Ji-Cheng Zhao	Seats (Total: 28)
	W 3:30pm - 5:00pm	CHE 2110

ENMA698 **Special Problems in Materials Science and Engineering**

(Perm req)

Individual, supervised study in materials science and engineering.

Contact department for information to register for this course.

ENMA797 **Independent Study**

This course is designed to provide students with a directed independent study course in order to prepare the scholarly paper required for the master's degree without thesis degree option.

0101	Ichiro Takeuchi	Seats (Total: 6)
	Contact instructor or department for details.	

ENMA799 **Master's Thesis Research**
Contact department for information to register for this course.

ENMA898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENMA899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENME Engineering, Mechanical Spring 2024

ENME201 **Careers in Mechanical Engineering**

The Mechanical Engineering Curriculum, Career Paths. Research areas in the Mechanical Engineering Department. The Mechanical Engineering Profession.

0101	Sami Ainane, Francis McCluskey	Seats (Total: 40)
	Th 12:30pm - 1:30pm	EGR 0135

ENME202 **Computing Fundamentals for Engineers**

(Perm req)

Corequisite: Must be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0201	Don DeVoe TuTh 8:00am - 8:50am Th 3:00pm - 5:00pm	Seats (Total: 50) EGR 1202 ONLINE	 Lab
0203	Don DeVoe TuTh 8:00am - 8:50am F 11:00am - 1:00pm	Seats (Total: 50) EGR 1202 ONLINE	 Lab
0204	Don DeVoe TuTh 8:00am - 8:50am W 4:00pm - 6:00pm	Seats (Total: 50) EGR 1202 ONLINE	 Lab

ENME208 **Introduction to Automotive Engineering and Design**

Selected concepts in automotive engineering and design at the introductory level utilizing the Terps Racing Baja SAE student project as a learning instrument. This class compliments ENME408, Automotive Design, which focuses on the Terps Racing Formula SAE car.

0101	Scott Schmidt Tu 6:30pm - 7:30pm Th 6:30pm - 8:30pm	Seats (Total: 10) JMP 1202 JMP 1202	

ENME272 **Introduction to Computer Aided Design**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME414 or ENME272.

Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks, and Autodesk Inventor). Two and three dimensional drawing. Dimensioning and specifications. Introduction of CAD based analysis tools. Students will complete a design project.

0101	David Kriesberg M 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0201	Mohammad Fazelpour Tu 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0301	David Kriesberg W 8:00am - 9:50am	Seats (Total: 42) KEB 2111	
0401	Mohammad Fazelpour Th 8:00am - 9:50am	Seats (Total: 42) KEB 2111	

0501	Mohammad Fazelpour F 8:00am - 9:50am	Seats (Total: 42) KEB 2111	

ENME299Z **Topics in Mechanical Engineering; The Legend of Zelda: A Link to Machine Design**

(Perm req)

Introductory topics in the field of mechanical engineering.

0101	Ryan Sochol W 9:00am - 9:50am	Seats (Total: 30) EGL 0105	

ENME331 **Fluid Mechanics**

(Perm req)

Prerequisite: ENES232 and ENES221. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Principles of fluid mechanics. Mass, momentum and energy conservation. Hydrostatics. Control volume analysis. Internal and external flow. Boundary layers. Modern measurement techniques. Computer analysis. Laboratory experiments.

0101	Amir Riaz, Cecilia Huertas Cerdeira MW 12:00pm - 12:50pm W 3:00pm - 4:50pm	Seats (Total: 40) JMP 3201 CSI 3120	 Lab
0102	Cecilia Huertas Cerdeira, Amir Riaz MW 12:00pm - 12:50pm W 1:00pm - 2:50pm	Seats (Total: 40) JMP 3201 CHM 1228	 Lab
0103	Cecilia Huertas Cerdeira, Amir Riaz MW 12:00pm - 12:50pm Th 1:00pm - 2:50pm	Seats (Total: 39) JMP 3201 HBK 0103	 Lab

ENME332 **Transfer Processes**

(Perm req)

Prerequisite: ENME331. Credit only granted for: ENME332 or ENFP312.

The principles of heat transfer. Conduction in solids. Convection. Radiation. Modern measurement techniques. Computer analysis.

0101	Sami Ainane, Siddhartha Das MW 9:00am - 9:50am Tu 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 PHY 0405	 Lab

0102	Sami Ainane, Siddhartha Das MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 CHM 1224	 Lab
0103	Siddhartha Das, Sami Ainane MW 9:00am - 9:50am Th 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 EGR 1102	 Lab
0104	Sami Ainane, Siddhartha Das MW 9:00am - 9:50am M 1:00pm - 2:50pm	Seats (Total: 40) ARM 0135 CHE 2136	 Lab
0106	Siddhartha Das, Sami Ainane MW 9:00am - 9:50am M 3:00pm - 4:50pm	Seats (Total: 40) ARM 0135 CHE 2136	 Lab

ENME350 **Electronics and Instrumentation I**

(Perm req)

Prerequisite: PHYS271 and PHYS270.

Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Xinan Liu, Peter Chung, Abhijit Dasgupta MW 8:00am - 8:50am M 1:00pm - 2:50pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab
0102	Abhijit Dasgupta, Xinan Liu, Peter Chung MW 8:00am - 8:50am Tu 3:30pm - 5:20pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab
0103	Xinan Liu, Peter Chung, Abhijit Dasgupta MW 8:00am - 8:50am W 3:30pm - 5:20pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab
0104	Peter Chung, Xinan Liu, Abhijit Dasgupta MW 8:00am - 8:50am Th 3:30pm - 5:20pm	Seats (Total: 40) ESJ 2208 EGR 3108	 Lab

ENME351 **Electronics and Instrumentation II**

(Perm req)

Prerequisite: PHYS271, ENME350, and PHYS270.

Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Steven Mitchell, Avik Dutt MW 10:00am - 10:50am M 3:30pm - 5:20pm	Seats (Total: 45) KEY 0106 EGR 3108	 Lab
0102	Steven Mitchell, Avik Dutt MW 10:00am - 10:50am Th 1:00pm - 2:50pm	Seats (Total: 45) KEY 0106 EGR 3108	 Lab
0103	Steven Mitchell, Avik Dutt MW 10:00am - 10:50am W 1:00pm - 2:50pm	Seats (Total: 45) KEY 0106 EGR 3108	 Lab
0106	Steven Mitchell, Avik Dutt MW 10:00am - 10:50am Tu 1:00pm - 2:50pm	Seats (Total: 45) KEY 0106 EGR 3108	 Lab
0107	Steven Mitchell, Avik Dutt MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 45) KEY 0106 EGR 3108	 Lab

ENME361 **Vibration, Controls and Optimization I**

(Perm req)

Prerequisite: ENES220, ENES221, and MATH246; and (MATH206 or ENME202). Restriction: Must be in Engineering: Mechanical program.

Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Miao Yu, Eleonora Tubaldi TuTh 9:30am - 10:45am	Seats (Total: 200) KEY 0106

ENME371 **Product Engineering and Manufacturing**

(Perm req)

Prerequisite: ENES221; and (ENME392 or STAT400). Restriction: Must be in Engineering: Mechanical program.

Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process.

0201	Vincent Nguyen MW 11:00am - 11:50am W 6:00pm - 7:50pm	Seats (Total: 35) KEY 0106 EGL 0101	 Lab
0202	Vincent Nguyen MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 35) KEY 0106 EGL 0101	 Lab
0203	Vincent Nguyen MW 11:00am - 11:50am F 9:00am - 10:50am	Seats (Total: 35) KEY 0106 EGL 0101	 Lab
0204	Vincent Nguyen MW 11:00am - 11:50am Th 5:00pm - 6:50pm	Seats (Total: 35) KEY 0106 EGL 0101	 Lab
0205	Vincent Nguyen MW 11:00am - 11:50am Th 7:00pm - 8:50pm	Seats (Total: 35) KEY 0106 EGL 0101	 Lab

ENME382 **Introduction to Materials Engineering**

(Perm req)

Prerequisite: ENES100; and permission of ENGR-Mechanical Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENMA300. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Carlos Rios Ocampo MW 5:00pm - 6:15pm	Seats (Total: 100) CHE 2110
0201	Luz Martinez-Miranda TuTh 9:30am - 10:45am	Seats (Total: 100) KEB 1110

ENME392 **Statistical Methods for Product and Processes Development**

(Perm req)

Prerequisite: MATH241.

Integrated statistical methodology for the improvement of products and processes in terms of performance, quality and cost. Designed experimentation. Statistical process control. Software application. Laboratory activities.

0101	Michel Cukier TuTh 11:00am - 12:15pm	Seats (Total: 75) JMP 3201	
0201	Michel Cukier, Dennis Leber TuTh 9:30am - 10:45am	Seats (Total: 75) JMP 3201	

ENME400 **Machine Design**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

Design of mechanical elements and planar machines. Failure theories. Design of pressure vessels, joints, rotating elements, and transmission elements. Kinematic structures, graphical, analytical, and numerical analysis and synthesis of linkages, gear trains, and flywheels are covered.

0101	Chandrasekhar Thamire TuTh 3:30pm - 4:20pm F 1:00pm - 2:50pm	Seats (Total: 75) KEB 1110 KEB 1110	 Discussion
0102	Mohammad Fazelpour TuTh 3:30pm - 4:20pm F 10:00am - 11:50am	Seats (Total: 75) CHE 2110 CSI 3117	 Discussion

ENME401 **Entrepreneurial Design Realization**

(Perm req)

Restriction: Must have senior standing and permission of instructor. Cross-listed with: ENES401. Credit only granted for: ENME401, ENME489B or ENES401. Formerly: ENME489B.

The vision for this course, and an aspect that makes it unique, is to expose students to the opportunities and challenges of bringing a product design to reality (entrepreneurship). The emphasis is on environmentally and socially sustainable projects. The end-product of this course will be full-scale implementations or complete design "packages" that can be taken to potential stakeholders.

0102	Vincent Nguyen F 2:00pm - 3:15pm W 2:00pm - 3:15pm	Seats (Total: 20) EGL 0105 EGR 3111	

ENME406 **Roller Coaster Engineering**

(Perm req)

Prerequisite: ENES220, ENES221, and ENME272. And ENME202; or MATH206. Corequisite: ENME400. Restriction: Permission of ENGR-Mechanical Engineering department.

Engineering of roller coasters including: specifications, concept creation, structural design, car design, and safety. Course covers biomechanics and rider kinematics as well as manufacturing aspects.

0101	Chandrasekhar Thamire	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	KEB 1200

ENME407 **Sustainability, Climate Change and Renewable Energy Systems**

Prerequisite: PHYS260; or permission of ENGR-Mechanical Engineering department. Restriction: Students must have completed a minimum of 60 credits by the time they will enroll in this course.

Countries around the world are developing innovative and sustainable solutions that not only help to protect the environment from the threats of global climate change, but that also can improve human health and quality of life. In this course students will explore solutions to climate change, as well as geothermal and hydroelectric energy systems and their applications.

Contact department for information to register for this course.

ENME408 **Selected Topics in Engineering Design; Automotive Design**

(Perm req)

Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

Restriction: Must be in Engineering: Mechanical program; and senior standing. Or permission of ENGR-Mechanical Engineering department. Repeatable to 6 credits if content differs. Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

0101	Leonard Hamilton	Seats (Total: 60)
	MW 5:00pm - 6:15pm	EGR 0108

ENME410 **Design Optimization**

Prerequisite: ENME271; or MATH206. Restriction: Permission of ENGR-Mechanical Engineering department; and junior or senior standing.

Introduction to the formal process of design optimization, including analytical and computational methods. Step by step design optimization techniques. Design optimization concepts, necessary and sufficient optimality conditions and solution techniques. Solution evaluation and tradeoff exploration.

0101	Shapour Azarm	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	EGR 2154

ENME413 **Bio-Inspired Robotics**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in ENME351. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME413 or ENME489L. Formerly: ENME489L.

Fundamentals and applications of biologically inspired robots, traditional robots, and design and fabrication of biologically inspired robots.

0101	Hugh Bruck	Seats (Total: 35)
	MW 3:30pm - 4:45pm	EGR 1104

ENME416 **Additive Manufacturing**

(Perm req)

Prerequisite: ENME331. And ENME272; or ENME414. Restriction: Permission of ENGR-Mechanical Engineering department.

Develop a comprehensive understanding of fundamental additive manufacturing, 3D printing approaches, including: extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a design for-additive manufacturing skillset for CAD and CAM methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	JMP 2121

ENME420 **De-Carbonization of Building Systems through Energy Audit, Renewable Energy, and Electrification**

(Perm req)

Prerequisite: ENES232 . Corequisite: ENME332. Restriction: Permission of the department. Credit only granted for: ENME420 or ENME489I. Formerly: ENME489I.

Provides students with fundamentals and applications of de-carbonization of building systems for energy sustainability through energy audit and efficiency measures, renewable energy, and electrification. Topics covered include societal and economic motivations for de-carbonization of buildings; building energy auditing and energy consumption analysis; lighting systems and controls; heating/cooling and ventilation systems; integrated building automation systems; fundamentals of renewable energy for building applications; fundamentals of building electrification and energy storage devices; emerging technologies for building energy sustainability.

0101	Michael Ohadi	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	PHY 1219

ENME424 **Urban Microclimate and Energy**

Prerequisite: Must have completed or be concurrently enrolled in ENME332. Recommended: ENME423. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME424 or ENME808I.

Urban microclimate from the perspective of transient heat and mass transfer using building energy simulations for building clusters as well as LEED building certification criteria. The focus is on understanding building energy consumption and environmental impacts from the individual building scale to a neighborhood scale.

0101	Jelena Srebric	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	CHE 2136

ENME427 **CSI Mechanical: Finding Reasons for Compromised Structural Integity**

(Perm req)

Prerequisite: ENES220 and ENME382. Restriction: Permission of ENGR-Mechanical Engineering department.

Understanding the causes of product failures including the political, societal, economic, environmental, and ethical impact of these failures, and the strategies to avoid, postpone, or mitigate them. Students will be encouraged to combine concepts from engineering, natural sciences, social sciences, and the humanities to address these complex issues. Basics of failure analysis, forensics, and reliability engineering and the scientific fundamentals underlying the most common types of failure. Issues of legal liability. Methods for monitoring the existing condition of a structure.

0101	Francis McCluskey	Seats (Total: 60)
	MW 3:30pm - 4:45pm	CSI 3117

ENME431 **Nuclear Reactor Systems and Safety**

(Perm req)

Prerequisite: MATH246. Recommended: ENME430. Restriction: Permission of ENGR-Mechanical Engineering department.

Engineering, material and thermal aspects of light water reactors, fast reactors, high temperature gas reactors, heavy water moderated reactors, breeder reactors, advanced reactors including GEN IV designs. Evolution of light water reactor safety and regulation in the US that has culminated in the current body of regulations.

0101	Mahmoud Massoud	Seats (Total: 35)
	MW 2:00pm - 3:15pm	JMP 2121

ENME433 **Nuclear Reactor Design**

(Perm req)

Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME433 or ENME489T. Formerly: ENME489T.

Principles of nuclear reactor engineering including nuclear reactor system design, materials, thermal-hydraulics, shielding, mechanical design, and safety analysis.

0101	Mahmoud Massoud	Seats (Total: 20)
	MW 11:00am - 12:15pm	JMP 2222

ENME435 **Remote Sensing Instrumentation**

(Perm req)

Prerequisite: ENME351. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME435 or ENME489Y. Formerly: ENME489Y.

Explores the fundamentals of remote sensing techniques including light detection and ranging (lidar), radar, and computer vision in the context of emerging technologies such as autonomous navigation, terrain modeling, and embedded smart devices.

0101	Steven Mitchell	Seats (Total: 65)
	TuTh 9:30am - 10:45am	EGR 0108

ENME436 **Renewable Energy**

(Perm req)

Prerequisite: ENME331. Restriction: Must be in a major within the ENGR-Mechanical Engineering department. Credit only granted for: ENME489K or ENME436. Formerly: ENME489K.

Fundamentals, design/analysis tools, and state of the art renewable energy technologies. Energy resources and global perspectives of current and future energy demand/consumption trends, followed by prime renewable energy technologies, including wind, solar, hydro, geothermal, and ocean thermal energy conversion. Economics of renewable energy, energy conservation opportunities, CO2 capture and storage, and thermal energy storage.

0101	Ashwani Gupta	Seats (Total: 39)
	Th 4:00pm - 6:40pm	JMP 2222

ENME461 **Control Systems Laboratory**

(Perm req)

Prerequisite: ENME351 and ENME361. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENEE461 or ENME461.

Students will design, implement, and test controllers for a variety of systems. This will enhance their understanding of feedback control familiarize them with the characteristics and limitations of real control devices. Students will also complete a small project. This will entail writing a proposal, purchasing parts for their controller, building the system, testing it, and writing a final report describing what they have done.

Cross-listed with ENEE461. Credit offered for ENME461 or ENEE461.

0101	William Levine MW 9:00am - 9:50am M 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0102	William Levine MW 9:00am - 9:50am W 1:00pm - 3:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0103	William Levine MW 9:00am - 9:50am F 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab
0104	William Levine MW 9:00am - 9:50am W 10:00am - 12:50pm	Seats (Total: 14) KEB 1110 KEB 3209	 Lab

ENME462 **Vibrations, Controls, and Optimization II**

(Perm req)

Prerequisite: ENME361. Restriction: Permission of the Mechanical Engineering Department.

Continuation of ENME361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Yancy Diaz-Mercado, Jin-Oh Hahn MW 10:00am - 10:50am W 11:00am - 12:50pm	Seats (Total: 29) EGR 1202 EGR 0312	 Lab
0102	Jin-Oh Hahn, Yancy Diaz-Mercado MW 10:00am - 10:50am Th 1:00pm - 2:50pm	Seats (Total: 42) EGR 1202 KEB 2111	 Discussion
0105	Jin-Oh Hahn, Yancy Diaz-Mercado MW 10:00am - 10:50am W 11:00am - 12:50pm	Seats (Total: 30) EGR 1202 KEB 2107	 Discussion

0106	Yancy Diaz-Mercado, Jin-Oh Hahn MW 10:00am - 10:50am Tu 5:00pm - 6:50pm	Seats (Total: 25) EGR 1202 KEB 2107	 Discussion

ENME464 **Cost Analysis for Engineers**

(Perm req)

Prerequisite: ENME392; or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Mechanical Engineering department.

An introduction to the financial and cost analysis aspects of product engineering. Introduces key elements of traditional engineering economics including interest, present worth, depreciation, taxes, inflation, financial statement analysis, and return on investment. Provides an introduction to cost modeling as it applies to product manufacturing and support. Cost modeling topics will include: manufacturing cost analysis, life-cycle cost modeling (reliability and warranty), and cost of ownership.

0101	Peter Sandborn TuTh 2:00pm - 3:15pm	Seats (Total: 90) JMP 3201	

ENME472 **Integrated Product and Process Development**

(Perm req)

Prerequisite: ENME331, ENME361, ENME351, and ENME371; and must have completed or be concurrently enrolled in ENME332. Restriction: Permission of the Department of Mechanical Engineering.

Integration of product development with the development process. Design strategies. Product architecture. Design for manufacturing. Selection of materials. Design for assembly.

0101	Elisabeth Smela Tu 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion
0201	Aris Cleanthous W 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion
0301	David Bigio Th 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion
0401	Nehemiah Emaikwu F 11:00am - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion

0501	Davis McGregor W 5:00pm - 6:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion
0601	David Bigio Th 2:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion
0701	Aris Cleanthous W 2:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 36) EGL 0105 ONLINE	 Discussion

ENME488 **Special Problems**

(Perm req)

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Limited to mechanical engineering seniors.

Contact department for information to register for this course.

ENME488A **Special Problems; Urgency and Agency: Tackling Local (and Global) Sustainability Challenges**

(Perm req)

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

0101	Elisabeth Smela MW 5:00pm - 6:15pm	Seats (Total: 36) EGR 0135

ENME488B **Special Problems; Automotive System Modeling and Control**

(Perm req)

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Prerequisites: ENME361 and permission of department. Recommended: ENME462

0101	Hosam Fathy TuTh 11:00am - 12:15pm	Seats (Total: 15) EGR 3106

ENME489 **Special Topics in Mechanical Engineering**

(Perm req)

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489D **Special Topics in Mechanical Engineering; Flight Dynamics and Simulation**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME489F.

0201	David Findlay Tu 3:30pm - 6:10pm	Seats (Total: 6) Location: TBA

ENME489E **Special Topics in Mechanical Engineering; Design for Sustainability**

Selected topics of current importance in mechanical engineering.

0101	Senthil Arul M 5:00pm - 7:30pm	Seats (Total: 25) AJC 2134

ENME489J **Special Topics in Mechanical Engineering; Fatigue Life Prediction**

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489M **Special Topics in Mechanical Engineering; Advanced Fluid Mechanics with Applications**

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME202 and ENME331.

0101	Johan Larsson TuTh 12:30pm - 1:45pm	Seats (Total: 30) EGR 3106

ENME489N **Special Topics in Mechanical Engineering; Batteries: Operation, Modeling, and Reliability**

(Perm req)

Selected topics of current importance in mechanical engineering.

0101	Hosam Fathy TuTh 9:30am - 10:45am	Seats (Total: 15) EGR 2116

ENME489P **Special Topics in Mechanical Engineering; Control of Smart Structures**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME361

0101	Amr Baz	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	EGR 1202

ENME489Q **Special Topics in Mechanical Engineering; Managing for Innovation and Quality**

Selected topics of current importance in mechanical engineering.

0101	W Ethan Eagle	Seats (Total: 30)
	M 3:00pm - 5:40pm	EGR 2116

ENME489R **Special Topics in Mechanical Engineering; Molecular Thermodynamics**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisites: ENES232 and MATH241.

0101	Bao Yang	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	HBK 1108

ENME489W **Special Topics in Mechanical Engineering; Aircraft Propulsion, Power, and Thermal Systems Design and Simulation**

(Perm req)

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME351 Co-requisite: ENME332

0101	William Malatesta	Seats (Total: 40)
	MW 11:00am - 12:15pm	JMP 2116

ENME633 **Molecular Thermodynamics**

An examination of the interactions between molecules, which govern thermodynamics relevant to engineering, will be conducted. We will investigate both classical and statistical approaches to thermodynamics for understanding topics such as phase change, wetting of surfaces, chemical reactions, adsorption, and electrochemical processes. Statistical approaches and molecular simulation tools will be studied to understand how molecular analysis can be translated to macroscopic phenomena.

0101	Bao Yang	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	HBK 1108

ENME635 **Energy Systems Analysis for Sustainability and Decarbonization**

Prerequisite: Undergraduate thermodynamics course or permission of the instructor. Credit only granted for: ENPM635 or ENME635.

Methods for the analysis of conventional and novel energy systems are taught throughout the course. Additional topics are, using the US National Energy Flow Chart to understand sources of carbon emissions, discussion of energy efficiency improvement methods, discussion of decarbonization and carbon capture and sequestration approaches and their impact on efficiency and emissions.

0101	Kurt Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
ME01	Kurt Radermacher Class time/details on ELMs	Seats (Total: 15) ONLINE

ENME656 **Theory and Modeling of Wall-Bounded Turbulent Flows**

Prerequisite: ENME 331 or equivalent; or permission of instructor.

Provides an introduction to turbulence with a specific focus on turbulent flows near solid boundaries in both external and internal flows. The course will cover both incompressible and compressible flows, and will introduce both theory and modeling approaches. The course will also include a more applied component where students will use Computational Fluid Dynamics software to analyze some representative flows

0101	Johan Larsson TuTh 9:30am - 10:45am	Seats (Total: 20) JMP 2121
AEA1	Johan Larsson Class time/details on ELMs	Seats (Total: 10) ONLINE

ENME664 **Dynamics**

Prerequisite: ENES221; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Kinematics in plane and space; Dynamics of particle, system of particles, and rigid bodies. Holonomic and non-holonomic constraints. Newton's equations, D'Alembert's principle, Hamilton's principle, and equations of Lagrange. Impact and collisions. Stability of equilibria.

0101	B Balachandran TuTh 3:30pm - 4:45pm	Seats (Total: 20) EGR 3102

ENME691 **Industrial Artificial Intelligence**

Prerequisite: ENME202; or equivalent; experience using Python; or permission of the instructor. Credit only granted for: ENME485 or ENME691.

Introduces students to advanced technologies - such as machine learning and tools, prognostics and health management (PHM), and data-centric engineering analytics - that ultimately enable the conversion of industrial big data into decision-ready information that can be used to improve the design, the productivity and the efficiency of industrial systems.

0101	Jay Lee M 5:00pm - 7:40pm	Seats (Total: 25) CHE 2145

ENME695 **Design for Reliability**

Cross-listed with: ENRE695. Credit only granted for: ENME695 or ENRE695.

Reliability is the ability of a product or system to perform as intended (i.e., without failure and within specified performance limits) for a specified time, in its life-cycle conditions. Knowledge of reliability concepts and principles, as well as risk assessment, mitigation and management strategies prepares engineers to contribute effectively to product development and life cycle management. This course teaches the fundamental knowledge and skills in reliability as it pertains to the design, manufacture, and use of electrical, mechanical, and electro-mechanical products. Topics cover the suitability of the supply chain members to contribute towards development, manufacturing, distribution and support of reliable products; efficient and cost-effective design and manufacture of reliable products; process capability and process control; derating, uprating, FMMEA, reliability prediction and reliability allocation; how to plan and implement product testing to assess reliability; how to analyze degradation, failure, and return data to estimate fundamental reliability parameters; root cause analysis; and reliability issues associated with warranties, regulatory requirements, and liabilities.

0101	Michael Pecht M 9:30am - 12:10pm	Seats (Total: 20) JMP 2217
ER01	Michael Pecht Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Michael Pecht Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME712 **Measurement, Instrumentation and Data Analysis for Thermo-Fluid Processes**

This course is designed to offer systemic coverage of the methodologies for measurement and data analysis of thermal and fluid processes at the graduate level. The course materials will cover three broad categories: (1) Fundamentals of thermal and fluid processes in single phase and multi phase flows as relates to this course; Measurement and Instrumentation techniques for measurement of basic quantities such as pressure, temperature, flow rate, heat flux, etc., and (3) Experimental Design and Planning, sources of errors in measurements, and uncertainty analysis.

0101	Ken Kiger TuTh 2:00pm - 3:15pm	Seats (Total: 25) CHM 2201

ENME742 **Urban Microclimate and Energy**

Jointly offered with: ENME424. Credit only granted for: ENME808I, ENME424 or ENME742. Formerly: ENME808I.

Examines urban microclimate from the perspective of transient heat and mass transfer using building energy simulations for building clusters. The focus is on understandingbuilding energy consumption and environmental impacts from the individual building scale (~100) to a neighborhood scale (~103). Emerging morphological properties of building clustersmodulate transient convective and radiative heat transfer resulting in different localmicroclimatic conditions. At the neighborhood scale, these conditions are analyzed using heatand mass transfer simulations in building clusters to provide boundary conditions for transient building energy simulations. At the individual building scale, besides the energy consumption,this course examines connection between indoor and outdoor environments.

0101	Jelena Srebric TuTh 12:30pm - 1:45pm	Seats (Total: 10) CHE 2136

ENME744 **Additive Manufacturing**

Prerequisite: ENME272 and ENME331; or students who have taken courses with comparable content may contact the department. Jointly offered wit h ENME416. Credit only granted for: ENME 416 OR ENME 744.

Develop a comprehensive understanding of fundamental additive manufacturing-alternatively, "three-dimensional (3D) printing-approaches, including extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a "design-for-additive manufacturing" skill set for combining computer-aided design (CAD) and computer-aided manufacturing (CAM) methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol MWF 1:00pm - 1:50pm	Seats (Total: 20) JMP 2121
DE01	Ryan Sochol Class time/details on ELMs	Seats (Total: 20) ONLINE

ENME799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

ENME808 **Advanced Topics in Mechanical Engineering**
Contact department for information to register for this course.

ENME808A **Advanced Topics in Mechanical Engineering; Batteries: Operation, Modeling, and Reliability**

0101	Hosam Fathy TuTh 9:30am - 10:45am	Seats (Total: 15) EGR 2116

ENME808B **Advanced Topics in Mechanical Engineering; Automotive System Modeling and Control**

	0101	Hosam Fathy TuTh 11:00am - 12:15pm	Seats (Total: 15) EGR 3106

ENME808D **Advanced Topics in Mechanical Engineering; Thermal Management of Electronics**

	0101	Damena Agonafer Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 20) HBK 0108 EGR 0312

ENME808E **Advanced Topics in Mechanical Engineering; Machine Learning: Theory and Applications**

	0101	Nikhil Chopra TuTh 11:00am - 12:15pm	Seats (Total: 20) PLS 1146

ENME808I **Advanced Topics in Mechanical Engineering; Interfacial Fluid Mechanics**

	0101	Siddhartha Das TuTh 3:30pm - 4:45pm	Seats (Total: 20) EGR 1110

ENME808J **Advanced Topics in Mechanical Engineering; Cost Analysis for Engineers**

(Perm req)

	0101	Peter Sandborn TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMP 3201
	ER01	Peter Sandborn Class time/details on ELMs	Seats (Total: 5) ONLINE
	RE01	Peter Sandborn Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME808M **Advanced Topics in Mechanical Engineering; De-Carbonization of Building Systems through Energy Audit,Renewable Energy, and Electrification**

	0101	Michael Ohadi TuTh 3:30pm - 4:45pm	Seats (Total: 10) PHY 1219

ENME808P **Advanced Topics in Mechanical Engineering; Control of Smart Structures**

	0101	Amr Baz TuTh 3:30pm - 4:45pm	Seats (Total: 9) EGR 1202

ENME898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENME899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENPM Engineering, Professional Masters Spring 2024

ENPM604 **Machine Learning Techniques Applied to Cybersecurity**

Credit only granted for: ENPM808R or ENPM604. Formerly: ENPM808R.

Focuses on applying machine learning techniques to cybersecurity, and includes labs to be done independently, as well as an overview of the latest machine learning algorithms and their application to cyber. A brief overview of which techniques should be applied to particular cyber problems will be provided, and the course culminates in students researching the latest applications of Machine learning to cyber, allowing the students to each develop a niche of expertise in that specific subtopic. As such, the students should be increasingly employable in their area of cyber expertise by industries searching for solutions to their cyber problem space.

0101	Josef Schaff Tu 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
DE01	Josef Schaff Class time/details on ELMs	Seats (Total: 25) ONLINE

ENPM605 **Python Applications for Robotics**

Credit only granted for: ENPM809E or ENPM605. Formerly: ENPM809E.

This hands-on course will look at the use of Python 3 with the Robot Operating System (ROS) in order to control a mobile robot in Gazebo simulated environments.

0101	Zeid Kootbally Tu 4:00pm - 6:40pm	Seats (Total: 45) JMP 2116
RO01	Zeid Kootbally Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM611 **Software Engineering**

Prerequisite: Competency in one programming language; and must have completed an undergraduate software engineering course.

Software engineering concepts, methods, and practices important to both the theorist and the practitioner will be covered. The entire range of responsibilities expected of a software engineer are presented. The fundamental areas of requirements development, software design, programming languages, and testing are covered extensively. Sessions on supporting areas such as systems engineering, project management, and software estimation are also included.

0101	Karthikeyan Chandrashekar Th 1:00pm - 3:40pm	Seats (Total: 25) JMP 2121
SW01	Christopher Ackermann Class time/details on ELMs	Seats (Total: 50) ONLINE

ENPM612 **System and Software Requirements**

(Perm req)

Prerequisite: ENPM611. Restriction: Permission of Maryland Applied Graduate Engineering.

Focus will be placed on the theoretical and practical aspects of requirements development. Students will recognize the place of requirements, how to work with users, requirements methods and techniques, the various requirements types, how to set requirements development schedules, requirements evolution, how to model and prototype requirements, how to evaluate and manage risk in requirements, techniques to test requirements, how to manage the requirements process, and how to write an effective requirements document.

0101	Mikael Lindvall, Madeline Diep Tu 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
SW01	Mikael Lindvall, Madeline Diep Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM614 **Software Testing & Maintenance**

(Perm req)

Prerequisite: ENPM611. Restriction: Permission of Maryland Applied Graduate Engineering.

The purpose of this course is to provide an overview of software testing and maintenance and how these activities fit into the Software Engineering Life-Cycle. Many examples used in the lectures are derived from analysis of various NASA systems. Topics include various forms of testing such as Functional Testing, Combinatorial Testing, Structural Testing, Model-Based Testing, Security-oriented testing as well as Software Architecture's role in testability & maintainability, Regression Testing, Automated Testing, Testing Coverage including MC/DC coverage and testing standards.

0101	Mikael Lindvall, Anumeet Nepaul Th 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
SW01	Mikael Lindvall, Anumeet Nepaul Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM624 **Renewable Energy Applications**

Prerequisite: Knowledge of thermodynamics, fluid mechanics, and heat transfer; and permission of Maryland Applied Graduate Engineering. Credit only granted for: ENPM624 or ENME701.

Thermodynamics and heat transfer of renewable energy sources for heating, power generation and transportation. Wind energy, solar thermal, photovoltaic, biomass, waste burning, and hydropower. Broad overview of the growing use of renewable energy sources in the world economy with detailed analysis of specific applications.

0101	Michael Ohadi, Andres Sarmiento Cajamarca Th 4:00pm - 6:40pm	Seats (Total: 46) JMP 2116
ME01	Michael Ohadi, Andres Sarmiento Cajamarca Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM637 **Managing Software Engineering Projects**

Credit only granted for: ENPM808E or ENPM637. Formerly: ENPM808E.

Addresses the breadth of managing software engineering projects. It will help in transforming inspiring software engineers to software project leaders. The course will impart advanced principles, methods and tools for management of software projects in a realistic software engineering context. A hybrid project management will be taught with more focused on Agile Project Management paradigms. The course will also impart a cutting-edge scalable, modular, and integrated patterns of the Scaled Agile Framework (SAFe) 4.0 for the software engineering program and portfolios management. In addition, the course will also instill DevOps best practices to build much more responsible organizations that can move quickly in ever-changing circumstances. Methods for managing and optimizing the software development process are discussed along with techniques for performing each phase of the systems development lifecycle.

0101	David Thomas W 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
SW01	David Thomas Class time/details on ELMs	Seats (Total: 25) ONLINE

ENPM650 **Solar Thermal Energy Systems**

Covers a review of related fundamentals, including limitations imposed by thermodynamics, solar spectral characteristics, measurement, and analytical models to predict solar irradiance with respect to time, location and orientation. The course will then examine the characteristics of various components in solar thermal systems with particular emphasis on flat plate and concentrating collectors, fixed and tracking collector systems, heat exchangers and thermal storage to understand how they work and how their performance is influenced by their design. The course will then lead to an examination of systems and system performance, including system design, predicted energy savings and related economics. The course will introduce low temperature applications such as solar hot water, space heating and water distillation, as well as concentrating solar energy for solar thermo-chemical processes to produce hydrogen and solar power generation systems. A project of importance to the development of Solar Thermal Power Systems will be assigned.

0101	Brian Valentine Th 7:00pm - 9:40pm	Seats (Total: 25) JMP 2217
ME01	Brian Valentine Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM656 **Energy Conversion II -- Mobile Power**

Prerequisite: Must have completed undergraduate courses in thermodynamics, heat transfer, and fluid mechanics; or ENPM672.

Presents the scientific and engineering basis for design, manufacture, and operation of thermal conversion technologies utilized for mobility power generation. The interface between fuel combustion chemistry and generated power are addressed. The practical aspects of design and operation of various alternatives for power are compared. The impact of choices with regard to power and fuel alternatives as well as air pollution potential are also considered.

0101	Jim Cowart M 7:00pm - 9:40pm	Seats (Total: 20) JMP 2116
ME01	Jim Cowart Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM661 **Planning for Autonomous Robots**

Planning is a fundamental capability needed to realize autonomous robots. Planning in the context of autonomous robots is carried out at multiple different levels. At the top level, task planning is performed to identify and sequence the tasks needed to meet mission requirements. At the next level, planning is performed to determine a sequence of motion goals that satisfy individual task goals and constraints. Finally, at the lowest level, trajectory planning is performed to determine actuator actions to realize the motion goals. Different algorithms are used to achieve planning at different levels. This graduate course will introduce planning techniques for realizing autonomous robots. In addition to covering traditional motion planning techniques, this course will emphasize the role of physics in the planning process. This course will also discuss how the planning component is integrated with control component. Mobile robots will be used as examples to illustrate the concepts during this course. However, techniques introduced in the course will be equally applicable to robot manipulators.

0101	Reza Monfaredi Tu 7:00pm - 9:40pm	Seats (Total: 38) JMP 2216
0201	Reza Monfaredi Tu 4:00pm - 6:40pm	Seats (Total: 75) JMP 3201
0301	Reza Monfaredi Tu 1:00pm - 3:40pm	Seats (Total: 45) JMP 2121
RO01	Reza Monfaredi Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM663 **Building a Manufacturing Robotic Software System**

Recommended: Prior C++ or Python programming experience. Credit only granted for: ENPM809B or ENPM663. Formerly: ENPM809B.

This hands-on course will look at the components of manufacturing robots, including architectures, planning/control, simulation, and measurement science. Students will explore the work that is being researched around the world in each of these areas, and will perform small hands-on exercises in most of the classes to gain a deeper understanding of how a selected set of these technologies can be applied to real-world challenges.

0101	Zeid Kootbally, Craig Schlenoff W 4:00pm - 6:40pm	Seats (Total: 38) JMP 2216
0201	Zeid Kootbally, Craig Schlenoff M 4:00pm - 6:40pm	Seats (Total: 17) JMP 2120
RO01	Zeid Kootbally, Craig Schlenoff Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM664 **Embedded System Hacking and Security**

(Perm req)

Prerequisite: Prior programming experience, familiarity with computer architectures and reading assembly. Restriction: Must have permission of Maryland Applied Graduate Engineering. Credit only granted for: ENPM809I or ENPM664. Formerly: ENPM809I.

The purpose of this course is to reveal the tools, techniques and procedures (TTPs) employed by adversaries to exploit and subvert the security of embedded systems. This course will cover the core concepts and techniques to analyze and characterize the behavior of embedded systems and platforms. Concepts will be introduced and discussed within the context of an adversary intent on altering or subverting the behavior of such systems. The course does not expect students to have any prior embedded systems experience.

This course requires the purchase of a kit. Information will be provided by the department when permission is requested.

0101	Gananand Kini, Robert Heinemann M 4:00pm - 6:40pm	Seats (Total: 33) JMP 2216
CY01	Robert Heinemann, Gananand Kini Class time/details on ELMs	Seats (Total: 7) ONLINE

ENPM665 **Cloud Security**

Credit only granted for: ENPM809J or ENPM665. Formerly: ENPM809J.

Covers the fundamentals of securing cloud-based workloads from the ground up with many hands-on examples. Through these hands-on exercises the course will demonstrate where the similarities and differences are when securing the cloud compared to securing traditional IT.

0101	Everett Daviage W 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
0201	Everett Daviage W 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
AEB1	Everett Daviage Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM671 **Advanced Mechanics of Materials**

Formulate and quantitatively state the mechanical/physical responses of structural components and configurations subjected to loads, temperature, pre-strains etc. The two methods of anlysis employed are the mechanics of materials approach and the theory of elasticity approach. Analysis and design of components of structural/machine systems as experienced in aeronautical, civil, mechanical and nuclear engineering.

0101	Mohammad Fazelpour Tu 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
DE01	Mohammad Fazelpour Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM673 **Perception for Autonomous Robots**

Prerequisite: Proficiency in a programming language is required. Recommended: Familiarity with Python.

Image Processing and Computer Vision techniques for Mobile Robots is taught. Three topics are covered: Image Processing (Image Enhancement, Filtering, Advanced Edge and Texture), 3D Vision (3D Geometry from Multiple view geometry, Motion Processing and Stereo) and an Introduction to Image Segmentation and Object Recognition. Students are introduced to a number of existing software toolboxes from Vision and Robotics, and will implement a number of smaller projects in Python.

0101	Samer Charifa Tu 7:00pm - 9:40pm	Seats (Total: 45) JMP 2116
0201	Tommy Chang Th 7:00pm - 9:40pm	Seats (Total: 46) JMP 2116
0301	Samer Charifa, Tommy Chang TuTh 5:00pm - 6:20pm	Seats (Total: 17) JMP 2120
RO01	Samer Charifa Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM685 **Security Tools for Information Security**

Prerequisite: Familiarity with Linux and Windows operating systems, as well as TCP/IP and basic networking concepts.

Students will perform host- and network-based security tasks relating to security, investigation, compliance verification and auditing using a wide selection of commonly used tools on both Windows and Linux platforms, with emphasis on open source tools.

0101	Bertrand Sobesto M 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
0201	Kevin Shivers W 4:00pm - 6:40pm	Seats (Total: 35) JMP 2222

0301	Kevin Shivers W 7:00pm - 9:40pm	Seats (Total: 45) JMP 2121
CY01	Bertrand Sobesto Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM686 **Information Assurance**

The first half of lectures provides an overview of cybersecurity. One third of these lectures focuses on the fundamentals of cybersecurity like authentication, access control, and security models. The second third focuses on the practice of cybersecurity using Unix and Windows NT as case studies. The last third is dedicated to security in distributed systems including network security, and World Wide Web security. The second half of the lectures focuses on the information assurance process. First, information assets are enumerated and classified. Second, the main vulnerabilities and threats are identified. Third, a risk assessment is conducted by considering the probability and impact of the undesired events. Finally, a risk management plan is developed that includes countermeasures involving mitigating, eliminating, accepting, or transferring the risks, and considers prevention, detection, and response.

0101	Edward Condon M 4:00pm - 6:40pm	Seats (Total: 75) JMP 3201
0201	Ryan Kropff W 4:00pm - 6:40pm	Seats (Total: 46) JMP 2116
CY01	Edward Condon Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM690 **Robot Learning**

Prerequisite: Proficiency in at least one commonly used programming language (e.g., C++, Python, Java), CMSC422 (Intro to Machine Learning) or equivalent. Credit only granted for: ENPM808F or ENPM690. Formerly: ENPM808F.

Machine learning may be used to greatly expand the capabilities of robotic systems, and has been applied to a variety of robotic system functions including planning, control, and perception. Adaptation and learning are particularly important for development of autonomous robotic systems that must operate in dynamic or uncertain environments. Ultimately we would like for the robots to expand their knowledge and improve their own performance through learning while operating in the environment (on-line and/or lifelong learning). This graduate course will explore the application of machine learning techniques, paradigms, and control design to robotic systems, focusing primarily on key useful representations and model building techniques for application in non-stationary robotic systems.

0101	Jerry Wu Th 7:00pm - 9:40pm	Seats (Total: 60) JMP 3201

RO01	Jerry Wu Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM691 **Hacking of C programs and Unix Binaries**

(Perm req)

Teaches the fundamentals of secure programming in C. An in depth discussion on various security vulnerabilities (e.g., buffer overflows) in C applications will be taught with hands-on demo of concepts during the class. Students will learn how a C program runs "under-the-hood". The course will teach nitty-gritty of C programs by analyzing at the assembly level. The course discusses best practices (e.g., coding standards) and design principles for secure programming so that security can be built-in during design time. In addition to assignments, students are required to present papers related to this course.

0101	Dharmalingam Ganesan F 2:00pm - 4:40pm	Seats (Total: 46) JMP 2121
CY01	Dharmalingam Ganesan Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM692 **Manufacturing and Automation**

Credit only granted for: ENPM808P or ENPM692. Formerly: ENPM808P.

Covers automation and product realization, digital factories, and disruptive manufacturing technologies. The role of additive manufacturing, sustainability, and performance simulation in selected manufacturing scenarios will be explored alongside automation strategies for rapid product development.

0101	Mahesh Mani W 7:00pm - 9:40pm	Seats (Total: 45) JMP 2116
RO01	Mahesh Mani Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM693 **Network Security**

Prerequisite: An operating systems and/or network protocol course or equivalent. Formerly: ENPM808N.

Introduction to various approaches to design; specify and verify security protocols used in large systems and networks; familiarization with some current technologies. Security threats and countermeasures, communication security and basic encryption techniques, authentication protocols, data confidentiality and integrity, analysis of cryptographic protocols, and access control in large systems and networks.

0101	Majid Raissi-Dehkordi W 7:00pm - 9:40pm	Seats (Total: 39) JMP 2222
0201	Majid Raissi-Dehkordi Tu 4:00pm - 6:40pm	Seats (Total: 38) JMP 2216
0301	Majid Raissi-Dehkordi Tu 7:00pm - 9:40pm	Seats (Total: 39) JMP 2222
CY01	Majid Raissi-Dehkordi Class time/details on ELMs	Seats (Total: 30) ONLINE

ENPM695 **Secure Operating Systems**

Prerequisite: ENPM691 and CMSC106; or permission of instructor. And permission of ENGR-CDL-Office of Advanced Engineering Education. Credit only granted for: ENPM695 or ENPM808B. Formerly: ENPM808B. Additional information: This course assumes knowledge of C programming and a previous operating systems class or knowledge in various issues such as process management, process synchronization, the critical section problem, CPU scheduling, memory management, secondary storage management.

Operating systems are the basic building block on which programmers build applications and on which security-minded professionals rely, whether they are monitoring activity on a computer, testing applications for security, or determining how malicious code affected their network. This course covers advanced topics in operating systems including process management and communication, remote procedure calls, memory management (including shared memory and virtual memory), checkpointing and recovery, file system, I/O subsystem and device management, distributed file systems and security. The course consists of reading and discussing research papers and includes a course project.

0101	Ido Dubrawsky Th 4:00pm - 6:40pm	Seats (Total: 85) JMP 3201
CY01	Ido Dubrawsky Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM697 **Secure Software Testing and Construction**

(Perm req)

Prerequisite: Permission of instructor; or (ENPM691 and CMSC106). Restriction: Must have permission of the Maryland Applied Graduate Engineering office.

As software gets more complex, there is even more potential for vulnerabilities to remain in the production version. While traditional and emerging software testing methods are very good at detecting a large majority of "bugs" in the software, modifications to the methods are necessary to ensure vulnerabilities related to security are discovered and mitigated prior to release. In industry, there is also a cost-benefit analysis that determines the limits to pre-release testing, further enforcing the need to uniquely identify security vulnerabilities, potentially prioritizing their correction over other vulnerabilities. This course will cover methods of building security in from the beginning of development and testing the resulting software to ensure security vulnerabilities are detected. The course will use a mixture of textbook principles and research papers to cover the concepts. Students will also complete a course project.

0101	Dharmalingam Ganesan Tu 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
CY01	Dharmalingam Ganesan Class time/details on ELMs	Seats (Total: 25) ONLINE

ENPM701 **Autonomous Robotics**

(Perm req)

Restriction: Permission of Maryland Applied Graduate Engineering. Credit only granted for: ENPM809T or ENPM701. Formerly: ENPM809T.

This is a hands-on course exploring the principles of robotic autonomy. Students will explore the theoretical, algorithmic, and implementation aspects of autonomous robotic modeling and controls, perception, localization and SLAM, planning, and decision making. These techniques will be applied through completion of a semester-long hands-on project employing the course material, ground-based mobile robots, and Python.

This course requires the purchase of a robotics kit.

0101	Steven Mitchell M 1:00pm - 3:40pm	Seats (Total: 11) JMP 2216
0201	Steven Mitchell Tu 4:00pm - 6:40pm	Seats (Total: 13) JMP 2121
RO01	Steven Mitchell Class time/details on ELMs	Seats (Total: 2) ONLINE

ENPM808 **Advanced Topics in Engineering**

(Perm req)

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

Independent study project on a topic relevant to their academic program, supervised by a University of Maryland, College Park faculty member. Requires application and approval.

0101	George Syrmos	Seats (Total: 25)
	Contact instructor or department for details.	

ENPM808E **Advanced Topics in Engineering; Underwater Robot Perception**

(Perm req)

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

Prerequisite: ENPM673. This course addresses the breadth of managing software engineering projects and will help in transforming inspiring software engineers to software project leaders. The course will impart advanced principles, methods and tools for management of software projects in a realistic software engineering context.

0101	shahriar Negahdaripour	Seats (Total: 20)
	Th 4:00pm - 6:40pm	JMP 2216

ENPM808K **Advanced Topics in Engineering; Advanced Systems Architecting**

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

This course continues the MSSE systems engineering course progression with a comprehensive focus on system architecture that drives systems and enterprise engineering decision making at many levels. The course introduces students to models for enterprise, business, systems-level, service/component level, discipline-specific architectures. Students will use integrated architecting tools to solve problems of interest to them and that stress the capture, analysis, reconciliation, leverage, and execution of architecture at many levels and the exercise of ANSI/ISO/IEC/IEEE standards for architectural description.

0101	Timothy Eveleigh	Seats (Total: 35)
	M 7:00pm - 9:40pm	JMP 2216
SY01	Timothy Eveleigh	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

ENPM808V **Advanced Topics in Engineering; Quality Management Systems and Lean Six Sigma**

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

This course covers Quality Engineering approaches for creating optimal and robust manufacturing and engineering systems. It provides an overview of the important tools for quality analysis and quality management of engineering systems. These tools are commonly used in companies and organizations.

0101	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
SY01	Tony Barber Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM808Z **Advanced Topics in Engineering; Cognitive Robotics**

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

Cognitive Robotics explores the application of human cognitive intelligence to the design and development of intelligent robots. The course delves into the fundamental principles of human cognitive intelligence and its integration with robotics and machine learning. Students will learn to develop cognitive robot learning architectures and implement them using simulators like Pybullet, NVIDA Issac-Gym, and Meta Habitat 2.0. Through engaging class projects, students will apply their newly acquired knowledge to solve novel, challenging and practically useful problems, enabling them to make meaningful contributions to the field. This uniqueopportunity to bridge the gap between cognitive science and robot learning that empowers students to develop smarter and more capable robotic systems.

0101	Yantian Zha M 4:00pm - 6:40pm	Seats (Total: 39) JMP 2222
R001	Yantian Zha Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809V **Special Topics in Engineering; Advanced Hacking of Linux and Embedded Systems**

(Perm req)

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

Prerequisite: ENPM691. Restriction: Permission of Maryland Applied Graduate Engineering. This course provides an in-depth understanding of how to find flaws in Linux (both user space and kernel space) and software within embedded devices (focusing on bare-metal software/firmware and hardware-focused techniques). Students will get an inside look at how modern operating systems and embedded devices protect their programs, flaws within the protection mechanisms, and how to exploit them. Although this is an offensive-focused course, mitigations to protect the programs will also be discussed.

0101	Michael Wittner M 4:00pm - 6:40pm	Seats (Total: 46) JMP 2116

CY01	Michael Wittner Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809X **Special Topics in Engineering; Data and Algorithms**

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

The course will teach the algorithms, heuristics, and code development skills in solving numerous sorting, graph theory, string processing, and job scheduling problems.

0101	Emre Gunduzhan Th 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
DE01	Emre Gunduzhan Class time/details on ELMs	Seats (Total: 15) ONLINE

ENPM818I **Variable Topics in Engineering; Embedded Software Design and Optimization**

Variable topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

This course covers the design and optimization of stable, maintainable, and secure embedded software systems. The main study topics include: Software engineering design and documentation artifacts; Information assurance and cybersecurity; CPU architectures, system components, and development tools; Operating system details; Programming models and tools; IO busses and networking protocols; and Low-level optimization techniques. Students will acquire not only technical knowledge, but also soft skills such as communication, collaborations, critical thinking, leadership, negotiation, and time management.

0101	Wiehrs Collier M 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
EB01	Wiehrs Collier Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM818L **Variable Topics in Engineering; Low Power Design for Embedded Systems**

Variable topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

Fundamentals of power dissipation, low power architectures, and runtime management techniques, edge computing, approximate computing, energy harvesting and associated projects

0101	Hassan Salmani W 7:00pm - 9:40pm	Seats (Total: 25) JMP 2217
EB01	Hassan Salmani Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM818O **Variable Topics in Engineering; Networks and Protocols for Cloud Engineering**

Variable topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

This course lays the foundation for networking principles and protocols applicable for cloud engineers. Starting with an introduction to layered architecture of data networks and introduces the concept of protocols and services of TCP/IP networks. It then progresses to provide details of operation of each layer of the protocol stack. These include detailed discussion on error detection, reliable data transfer, Local Area Networks (LANs), multiple access protocols, routing algorithms, flow control and congestion control mechanisms. Students will also learn 5G wireless data networks and protocols as it pertains to cloud access, including Internet of Things (IoT) protocols, Software Defined Networking, Network Function Virtualization concepts, IP Multicast and Mobile IP. As part of the course work, the students will learn how to capture and analyze real world network traffic.

0101	C Ravishankar M 7:00pm - 9:40pm	Seats (Total: 35) JMP 2121
AEB1	C Ravishankar Class time/details on ELMs	Seats (Total: 20) ONLINE

ENRE Reliability Engineering Spring 2024

ENRE447 **Fundamentals of Reliability Engineering**

(Perm req)

Prerequisite: MATH141.

This course provides a general survey of the techniques of reliability engineering with a focus on quantitative methods. Topics covered include: failure modes and effects analysis, mathematical definition of reliability, probabilistic models to represent failure phenomena, statistical life models for non-repairable components, reliability data analysis, and system reliability models including fault trees, event trees. Students will learn how to apply these techniques to problems related to engineering systems, with example cases for process plants, energy systems and infrastructure.

0101	Katrina Groth M 3:30pm - 6:00pm	Seats (Total: 35) JMP 2121

ER01	Katrina Groth Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE489 **Special Topics in Reliability Engineering**

(Perm req)

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE620 **Mathematical Techniques of Reliability Engineering**

Basic probability and statistics. Application of selected mathematical techniques to the analysis and solution of reliability engineering problems. Applications of matrices, vectors, tensors, differential equations, integral transforms, and probability methods to a wide range of reliability related problems.

0101	Reuel Smith TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMP 2217
ER01	Reuel Smith Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Reuel Smith Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE640 **Collection and Analysis of Reliability Data**

Prerequisite: ENRE602.

Reliability data collection and analysis is of high (practical) importance in many essential engineering tasks including but not limited to: design alternatives evaluation, failure root cause analysis, early detection of field reliability problems, warranty reserve allocation, and others. The course teaches nonparametric and parametric statistical procedures of reliability data analysis for both non-repairable and repairable systems. It covers test data analysis (including accelerated and degradation testing), field data analysis (including warranty data and connected fleets data). Machine learning methods in reliability data analysis are discussed as well, along with special topics on condition-based maintenance and prognostics.

0101	Ramin Moradi F 9:00am - 11:40am	Seats (Total: 20) JMP 2116
ER01	Ramin Moradi Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Ramin Moradi Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE648 **Special Problems in Reliability Engineering**

(Perm req)

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Contact department for information to register for this course.

ENRE655 **Advanced Methods in Reliability Modeling**

Prerequisite: ENRE602.

Students learn representative machine learning algorithms with applications to reliability engineering. This course will cover model-based methods for reliability analysis, reliability model parameter estimation with both maximum likelihood approaches and Bayesian approaches, model selection, and model-based methods for health monitoring and reliability prediction. This course will also cover data-driven methods for reliability analysis, including neural networks, deep neural networks, random forest, support vector machines. Lastly, this course will cover topics on decision optimization based on reliability analysis, focusing on the Markov decision process and reinforcement learning.

0101	Yunfei Zhao, Mohammad Modarres W 1:00pm - 3:40pm	Seats (Total: 20) JMP 2216
ER01	Mohammad Modarres, Yunfei Zhao Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres, Yunfei Zhao Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE695 **Design for Reliability**

Cross-listed with: ENME695. Credit only granted for: ENME695 or ENRE695.

Reliability is the ability of a product or system to perform as intended (i.e., without failure and within specified performance limits) for a specified time, in its life-cycle conditions. Knowledge of reliability concepts and principles, as well as risk assessment, mitigation and management strategies prepares engineers to contribute effectively to product development and life cycle management. This course teaches the fundamental knowledge and skills in reliability as it pertains to the design, manufacture, and use of electrical, mechanical, and electro-mechanical products. Topics cover the suitability of the supply chain members to contribute towards development, manufacturing, distribution and support of reliable products; efficient and cost-effective design and manufacture of reliable products; process capability and process control; derating, uprating, FMMEA, reliability prediction and reliability allocation; how to plan and implement product testing to assess reliability; how to analyze degradation, failure, and return data to estimate fundamental reliability parameters; root cause analysis; and reliability issues associated with warranties, regulatory requirements, and liabilities.

0101	Michael Pecht M 9:30am - 12:10pm	Seats (Total: 20) JMP 2217

ER01	Michael Pecht Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Michael Pecht Class time/details on ELMs	Seats (Total: 5) ONLINE

ENRE799 **Master's Thesis Research**
Contact department for information to register for this course.

ENRE898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENRE899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENSE Systems Engineering Spring 2024

ENSE622 **System Trade-off Analysis, Modeling, and Simulation**

Prerequisite: Permission of ENGR-Institute for Systems Research; and ENSE621. Recommended: Familiarity with calculus, probability, linear algebra, differential equations, & computer programming recommended. Credit only granted for: ENPM642 or ENSE622.

This course continues the model-based approach to systems engineering by introducing students to a variety of mathematical modeling and simulation techniques used to perform system performance, optimization, and trade-off analyses. Topics include: linear and integer programming; state machine models of finite state machines; development of simple intelligent agents; modeling Markov processes; queueing theory; multi-objective trade-off analyses; decision trees; stochastic (Monte Carlo) simulation, linear regression, some predictive analytic techniques; and an introduction to control theory. Mathematical models and simulations are developed and executed using MATLAB. The course includes a class project in which students solve a problem of interest to them using one or more of techniques addressed in class.

0101	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 17) JMP 2222
SY01	Scott Simpkins M 7:00pm - 9:40pm	Seats (Total: 20) ONLINE

ENSE624 **Human Factors in Systems Engineering**

(Perm req)

Restriction: Permission of ENGR-Institute for Systems Research. Credit only granted for: ENPM644 or ENSE624.

This course covers the general principles of human factors, or ergonomics as it is sometimes called. Human Factors (HF) is an interdisciplinary approach for dealing with issues related to people in systems. It focuses on consideration of the characteristics of human beings in the design of systems and devices of all kinds. It is concerned with the assignment of appropriate functions for humans and machines, whether the people serve as operators, maintainers, or users of the system or device. The goal of HF is to achieve compatibility in the design of interactive systems of people, machines, and environments to ensure their effectiveness, safety and ease of use.

0101	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 30) JMP 2222
SY01	Robert Beaton Th 7:00pm - 9:40pm	Seats (Total: 10) ONLINE

ENSE699 **Directed Study in Systems Engineering**

(Perm req)

Directed study in Systems Engineering.

Contact department for information to register for this course.

ENSE799 **Systems Engineering Thesis; Masters Thesis Research**

(Perm req)

The application of systems engineering concepts, principles, and theories will be applied to the Master's Thesis project. Project/thesis work will be defined and selected early in student's program and supervised by a university faculty mentor.

Contact department for information to register for this course.

ENSP Environmental Science and Policy Spring 2024

ENSP101 **Introduction to Environmental Science**

One of two required courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on scientific ways of knowing; the systems, cycles, flows, and interfaces that characterize the atmosphere, lithosphere, hydrosphere, and biosphere; the analysis of human impacts on these systems; and the nature of scientific uncertainty and methods of quantifying environmental processes.

Contact department for information to register for this course.

ENSP102 **Introduction to Environmental Policy**

Additional information: May be taken before or after ENSP101.

Second of two courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on the process of formulating, implementing, and evaluating policy responses to environmental problems, with particular attention to policy controversies related to scientific uncertainty, risk assessment, the valuation of nature, and distributional equity. May be taken before or after ENSP101.

0101	Joanna Goger TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 22) EGR 1202 JMZ 0120	Discussion
0102	Joanna Goger TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 22) EGR 1202 JMZ 0103	Discussion
0103	Joanna Goger TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 23) EGR 1202 CHE 2145	Discussion
0104	Joanna Goger TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 22) EGR 1202 MTH 0305	Discussion
0105	Joanna Goger TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 22) EGR 1202 JMZ 0118	Discussion
0106	Joanna Goger TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 22) EGR 1202 MTH B0425	Discussion
0107	Joanna Goger TuTh 9:30am - 10:45am Th 3:00pm - 3:50pm	Seats (Total: 22) EGR 1202 MTH 0402	Discussion

ENSP250 **Lawns in the Landscape: Environmental Hero or Villain?**

Cross-listed with PLSC250. Credit only granted for: ENSP250 or PLSC250.

Examination of the lawn as an element in the anthropogenic landscape and its influence on global warming, regional air and water quality, ecological diversity, mammalian pesticide exposure and consumptive water use. Demographic and socioeconomic factors are examined in the context of being predictors of landscape aesthetic desires and lawn management behaviors. Policies that incentivize lawn alternatives or changes in lawn management behavior are discussed.

0101	Mark Carroll MW 4:00pm - 5:15pm	Seats (Total: 25) SYM 0209	

ENSP306 **Fundamentals of Qualitative Research Methods for Environmental Studies**

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher; and must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An introduction to research design and methods, with an in-depth focus on qualitative research methods and application to environmental studies. Topics include: writing an appropriate research question, identifying relevant methods, submitting a proposal to the Institutional Review Board, choosing appropriate sampling approaches, conducting interviews, focus groups, ethnographies, analyzing textual data, and presenting qualitative results.

0101	Caroline Boules	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TYD 2102

ENSP342 **Environmental Threats to Oceans and Coasts: Towards an Integrated Policy Response**

(Perm req)

Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An interdisciplinary study of the challenges of maintaining the health and vitality of oceans and coasts in the face of climate change, extreme weather, and other threats including pollution, and oil and gas development. Exploration of four broad themes: resource management, conservation and stewardship, pollution, and coastal zone management. Also, an analysis of current efforts to integrate these themes through ecosystem-based management; marine spatial planning; and related policy responses.

0101	Annette Spivy	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	HJP 2217

ENSP370 **Principles of Environmental Justice: Theory and Practice**

(Perm req)

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher. Must be a major in the Environmental Science and Policy program; permission of Environmental Science and Policy program.

Explores the issue of environmental justice from the social science, policy, and legal perspectives. The course will begin with a theoretical foundation of environmental justice, and the historical, social and economic roots of environmental injustices and environmental racism. We will explore the different contexts within which environmental injustice manifests itself including domestic and international examples such as injustices in the food system, climate justice, environmental privilege, and urban environmental justice and pollution. We will study the ways in which people and communities have combated environmental injustices by looking at the history of the environmental justice movement, which was created to address the increasingly disproportionate impacts of environmental harms on low income populations and communities of color.

0101	Joanna Goger TuTh 12:30pm - 1:45pm	Seats (Total: 30) ATL 1114

ENSP386 **Internship**

(Perm req)

Restriction: Must have internship proposal approved by the concentration advisor, the director of ENSP and the student's internship sponsor.

Contact department for information to register for this course.

ENSP399 **Special Topics in Environmental Science and Policy**

(Perm req)

A substantive and specialized examination of contemporary issues in environmental science or policy.

Contact department for information to register for this course.

ENSP399R **Special Topics in Environmental Science and Policy; Research**

(Perm req)

A substantive and specialized examination of contemporary issues in environmental science or policy.

0101	Ariana Sutton-Grier, Melissa Kenney F 10:00am - 1:00pm	Seats (Total: 15) Location: TBA
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0601	Annette Spivy Contact instructor or department for details.	Seats (Total: 10)
1001	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)

ENSP400 **Capstone in Environmental Science and Policy**

(Perm req)

Prerequisite: ENSP101; and ENSP102. Restriction: Must be in Environmental Science and Policy program; and senior standing; and permission of the Environmental Science and Policy Program.

Integration of physical, biological, and social sciences with applications to environmental science and policy. Problem-solving and multi-disciplinary case study evaluations pertinent to contemporary and future issues related to the environment.

0101	Caroline Boules TuTh 3:30pm - 4:45pm	Seats (Total: 30) ESJ 2212

0102	Annette Spivy TuTh 3:30pm - 4:45pm	Seats (Total: 30) ESJ 2212	
0103	Colleen O'Donnell TuTh 3:30pm - 4:45pm	Seats (Total: 18) ESJ 2212	

ENSP499 **Honors Thesis Research**

Individual research, thesis, and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

ENST Environmental Science and Technology Spring 2024

ENST200 **Fundamentals of Soil Science**

Corequisite: CHEM131 and CHEM132; or permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST200 or NRSC200. Formerly: NRSC200.

Study and management of soils as natural bodies, media for plant growth, and ecosystem components. Morphology, composition, formation, and conservation of soils. Chemical, biological, and physical properties are discussed in relation to the production of plants, the functioning of hydrologic and nutrient cycles, the protection of environmental quality, and engineering uses of soils.

0101	Eni Baballari TuTh 9:30am - 10:45am Tu 4:00pm - 6:50pm	Seats (Total: 20) ANS 0408 HJP 0210	 Lab
0102	Eni Baballari TuTh 9:30am - 10:45am W 9:00am - 11:50am	Seats (Total: 20) ANS 0408 HJP 0210	 Lab
0103	Eni Baballari TuTh 9:30am - 10:45am W 4:00pm - 6:50pm	Seats (Total: 20) ANS 0408 HJP 0210	 Lab

ENST214 **Introduction to Natural Resources Management**

Prerequisite: BSCI160 and BSCI161; or permission of instructor. Restriction: Must be in the ENST Natural Resources Management or ENSP Wildlife Ecology & Management programs; and must have completed less than 90 credits; or permission of instructor.

Lectures, discussion, and readings in social, biological, and human dimension issues facing natural resource managers in the United States. Coverage will include history and philosophical discussions of fishery, wildlife, and forestry sciences; conservation and management; principles of community, habitat, and animal ecology and management; and interrelations of wildlife, fish, and forestry.

0101	Shannon Browne TuTh 12:30pm - 1:45pm	Seats (Total: 30) ANS 0422	

ENST233 **Introduction to Environmental Health**

Examines how humans are affected by the quality of our air, water, soil and food supply as well as how human activities alter these survival necessities. Students will learn how the evolution and prosperity of human populations have resulted in degradation of our environment and the impact of environmental degradation on the health of people. The implications of individual and collective choices for sustainable food production, population management, and resource utilization will be explored.

0101	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0102	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0103	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0104	Jennifer Gunnulfsen TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion

ENST309 **Advanced Field Soil Morphology**

(Perm req)

This is a field-oriented course that provides advanced training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the National Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field. Students will be exposed to a variety of soil landscapes and geology from outside of the northeastern U.S.

Restriction: Permission of AGNR-Environmental Science and Technology department. Prerequisite: ENST301

0101	Martin Rabenhorst W 7:30am - 8:45am	Seats (Total: 15) HJP 0210	

ENST334 **Environmental Toxicology**

Prerequisite: CHEM131, CHEM132, and BSCI207; or permission of AGNR-Environmental Science & Technology department.

Concepts and case histories in ecotoxicology. Emphasis on origin and variety of environmental pollutants, routes of biological exposure, modes of toxicological action and effects on individual organisms, populations and ecosystems. Ecotoxicological issues in the Chesapeake Bay will be used as examples.

0101	Lance Yonkos	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	ANS 0412

ENST388 **Honors Thesis Research**

(Perm req)

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Restriction: Permission of AGNR-Environmental Science & Technology department. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

ENST389 **Internship**

(Perm req)

Credit will be granted for practical work carried out by students placed in work environment related to their stated career goals. Students must do an in-depth study in some portion of the work experience and produce a special project or report related to this study. A student work log is also recommended. An evaluation from the external supervisor of the project will be required. Credit arranged with supervising faculty member.

0101	Jose-Luis Izursa	Seats (Total: 50)
	Contact instructor or department for details.	

ENST405 **Energy and Environment**

Prerequisite: MATH140 or MATH120; or must have completed MATH220. Restriction: Junior standing or higher. And must be in Environmental Sci & Tech program; or must be in Environmental Sci & Tech: Ecological Tech Design program; or must be in Environmental Sci & Tech: Environmental Health program; or must be in Environmental Sci & Tech: Soil & Watershed Science program; or must be in Environmental Sci & Tech: Natural Resources Mgmt program. Jointly offered with ENST605. Credit only granted for: ENST405, ENSP350, ENST605, or MEES698Z.

Introduction to the role of energy in environmental and human-dominated systems. Discussion of the historical and modern production and consumption of energy. Introduction to energy systems computer simulation and energy auditing.

Jointly offered with MEES698Z. Credit granted for ENST405 or MEES698Z.

0101	David Tilley	Seats (Total: 40)	
	MWF 10:00am - 10:50am	ANS 0538	

ENST410 Ecosystem Services: An Integrated Analysis

Prerequisite: ENST360 or BSCI361; or permission of instructor. Restriction: Must be in one of the following programs (Environmental Sci & Tech: Ecological Tech Design; Environmental Sci & Tech; Environmental Sci & Tech: Natural Resources Mgmt; Environmental Sci & Tech: Soil & Watershed Science; Environmental Sci & Tech: Environmental Health).

The importance of our ecosystems and the services they provide will be discussed. Basic principles used to analyze ecosystem services will be discussed and applied using case studies & field exercises. Forestland, wetlands and our marine resources are increasingly recognized for their ecosystem services provided to society, to include clean air and water, wildlife habitat, biodiversity, carbon storage and pollination services. This course will prepare students to deal with the complex issues involved in understanding those and other ecosystem services and their importance to society and environmental sustainability. Slowly, new markets are emerging for these services. Students will analyze the ecological, policy and financial dimensions of enhancing, restoring, and sustaining ecosystem services. New and on-going government programs and private business ventures will be discussed.

0101	Peter May	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm	ANS 0422	

ENST421 Soil Chemistry

Prerequisite: ENST200.

The chemistry and composition of mineral and organic colloids in soils, including ion exchange, oxidation-reduction, acidity, surface charge, and solution chemistry. Lectures and readings pertain to plant nutrition, waste disposal, and groundwater quality.

0101	Jared Wilmoth	Seats (Total: 14)	
	TuTh 12:30pm - 1:45pm	HJP 0210	
	Th 2:00pm - 4:50pm	HJP 0210	Lab

ENST422 Soil Microbial Ecology

Prerequisite: ENST200; or 1 course in BCHM; or must have completed a course in microbiology; or students who have taken courses with comparable content may contact the department. Jointly offered with: ENST622.

The interdisciplinary study of soil microorganisms and their interactions with the mineral matrix; resulting in processes such as nutrient cycling, decontamination, and natural product production. We will focus on the diversity of soil communities, their survival strategies, and the new strategies used to study these communities.

0101	Stephanie Yarwood	Seats (Total: 25)	
	TuTh 9:30am - 10:45am	ANS 0422	

ENST423 Soil-Water Pollution

Prerequisite: ENST200.

Reaction and fate of pesticides, agricultural fertilizers, industrial and animal wastes in soil and water with emphasis on their relation to the environment.

0101	Candice Duncan	Seats (Total: 35)	
	TuTh 11:00am - 12:15pm	ANS 0412	

ENST430 Wetland Soils

Prerequisite: ENST200. Credit only granted for: ENST430 or ENST630.

The soils of wetlands including hydrology, chemistry, and genesis are discussed. Federal and regional guidelines for wetland soils are covered with an emphasis on validating interpretations through field observations.

0101	Martin Rabenhorst	Seats (Total: 14)	
	MW 2:00pm - 2:50pm	EGR 3114	
	M 3:00pm - 6:00pm	HJP 0210	Lab

ENST436 Emerging Environmental Threats

Prerequisite: ENST233; or permission of AGNR-Environmental Science & Technology department.

Examine new and potential environmental concerns in the air, water, soil, space, and the built environment. Emphasis on studying the intrinsic links between ecosystem and human health. Topics will include climate change, resource consumption, biodiversity change, infectious disease, non-traditional pollutants, and other complex and significant environmental concerns.

0101	Jennifer Gunnulfsen	Seats (Total: 30)	
	MWF 11:00am - 11:50am	ANS 0422	

ENST452 Wetland Restoration

Prerequisite: (BSCI160 and BSCI161; or BSCI106); and (BSCI362, ENST450, ENST360, or BSCI361).

Design, construction, and evaluation of wetlands restored or created to provide ecosystem services or to mitigate losses due to development. Topics include fundamental properties of wetlands, ecological restoration theory, site selection and goal-setting, design plans, practices for establishing wetland hydrology, substrate, and vegetation, and restored ecosystem monitoring.

0101	Andrew Baldwin	Seats (Total: 40)	
	TuTh 2:00pm - 3:15pm	ANS 0422	

ENST453 **Watershed Science: Water Balance, Open Channel Flow, and Near Surface Hydrology**

Prerequisite: MATH120, ENST200, GEOG306 or BIOM301. Recommended: PHYS121. Credit only granted for: ENST453 or ENST653.

Definition and delineation of watersheds based on the stream orders. Discussion of the principle of conservation of mass in the context of life cycles (water cycle, carbon cycle, photosynthesis, aerobic cycle, anaerobic cycle, and nitrogen cycle) as it relates to our Biosystem. Conceptual study of hydrologic cycle components and their prediction using empirical and physical-based models is covered. Role of water as the dynamic force within the context of its interaction with landscapes of diverse geology and land cover will be discussed. Elements of watershed management is discussed.

0101	Adel Shirmohammadi	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	ANS 0538	

ENST462 **Field Techniques in Wildlife Management**

(Perm req)

Prerequisite: ENST460. And BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. Recommended: ENST461. Restriction: Permission of AGNR-College of Agriculture & Natural Resources.

Hands-on experience with field techniques in wildlife management focusing on various methods of conducting indices, estimates, and censuses of wildlife populations. Includes capture and handling of amphibians, reptiles, birds, and mammals by use of drift fences, cover boards, mist nets, box traps, and dart guns.

0101	Shannon Browne	Seats (Total: 15)	
	F 9:00am - 9:50am	ANS 0422	
	F 11:00am - 12:50pm	ANS 0538	Lab
	F 10:00am - 10:50am	ANS 0422	Discussion

ENST470 **Ideas into Impact**

(Perm req)

Restriction: Junior or Senior standing only; Permission of AGNR-Environmental Science & Technology department.

This will be a capstone-type course based around developing proposals for projects emphasizing research, monitoring, design, restoration, managament, entrepreneurship, or other approaches to ecological or environmental questions, issues, or problems.

0101	David Tilley	Seats (Total: 40)	
	M 4:00pm - 5:50pm	ANS 0538	
	W 4:00pm - 4:50pm	ANS 0538	

ENST472 **Capstone**

(Perm req)

Restriction: Must be in a major within AGNR-Environmental Science & Technology department; and permission of AGNR-Environmental Science & Technology department. Additional information: This is the pinnacle course for students majoring in ENST and is therefore recommended in one of the students' final semesters.

This capstone course focuses on professional project preparation, presentation, and critical evaluation on environmental science research. Students will develop and present original projects and critique projects presented by others.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 15)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 15)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 5)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 15)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 15)
1701	Patrick Benson Contact instructor or department for details.	Seats (Total: 15)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 15)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 15)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 15)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 5)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 15)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 7)

2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 15)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 15)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 15)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 15)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 15)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 15)
2801	Kate Tully Contact instructor or department for details.	Seats (Total: 2)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 15)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 15)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 15)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 5)
3101	Steven Mirsky Contact instructor or department for details.	Seats (Total: 5)
3201	Peter May Contact instructor or department for details.	Seats (Total: 10)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 5)
3301	Adel Shirmohammadi Contact instructor or department for details.	Seats (Total: 4)

3401	Jared Wilmoth Contact instructor or department for details.	Seats (Total: 10)	
3601	Henry Gallo Contact instructor or department for details.	Seats (Total: 10)	

ENST481 **Ecological Design**

(Perm req)

Prerequisite: (MATH120 or MATH140; or must have completed MATH220); and (PHYS121 and CHEM131); and (BSCI361; or students who have taken courses with comparable content may contact the department). Or permission of instructor. Restriction: Permission of AGNR-Environmental Science & Technology department. Jointly offered with: MEES681. Credit only granted for: ENST481, ENST681, or MEES681.

An advanced survey course on the field of ecological design. Principles of design are illustrated with case studies from biologically-based waste treatment systems, ecosystem management and sustainable development. Concepts covered include ecology, ecological engineering, nutrient cycling, emergy, lifecycle analysis, and design process. Technologies include treatment wetlands, living machines, anaerobic digestion, rain gardens, bioswales, bioremediation, algal turf scrubbers, and green building design.

0101	Peter May TuTh 12:30pm - 1:45pm Tu 9:00am - 10:50am	Seats (Total: 20) ANS 0538 ANS 0538	 Lab

ENST486 **Senior Professional Experience**

(Perm req)

Prerequisite: ENST389. Restriction: Must be in the Environmental Science and Technology program; and permission of AGNR-Environmental Science & Technology department. Additional information: The course has two types of activities: lecture and experiential learning. Students are expected to work on their professional-level experience for 90 hours and participate in a 2-hour lecture every other week, during the semester to develop their Senior Integrative Experience (SIE) project. Each student's research question, proposal methodology, analysis, paper, and presentation will follow learning outcomes of all ENST SIE course options.

Students will arrange an off-campus professional-level work experience related to Environmental Science and Technology (ENST) to develop expertise in a specific area of their ENST concentration curriculum. Classroom sessions will frame student experiences within the broader discipline of Environmental Science and Technology. This course will tie together current practices in the ENST career industry, proposal writing, critical analysis, and culminate in a final paper and presentation.

0101	Jose-Luis Izursa F 10:00am - 1:00pm	Seats (Total: 40) ANS 1422	

ENST489 **Research Experience**

(Perm req)

An advanced research-based course in the field of environmental science and technology.

Contact department for information to register for this course.

ENST499 **Special Topics in Environmental Science and Technology**

(Perm req)

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to register for this course.

ENST499O **Special Topics in Environmental Science and Technology; Principles of Aquaponics: The Circular Food Production System**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

In the last few years, aquaponics has attracted a lot of attention around the globe, especially in the context of urban farming. In this course, students will get answers to questions such as: how exactly does an aquaponics system work and what knowledge is needed to successfully run an aquaponics system? The different parts of this course will give the students an understanding of important topics in the field of aquaponics and develop a broad knowledge base: from water chemistry, fish and plant hysiology, to engineering and microbiology and show them how to plan and design such a sustainable production system. Aquaponics is a technique that combines aquaculture (fish farming) and hydroponics (soil-less plant cultivation) in a circulatory system with the aim of recycling nutrients from fish farming wastewater. Also, aquaponics can serve as a learning model for inter- and transdisciplinary thinking and acting.

0101	Jose-Luis Izursa	Seats (Total: 24)
	TuTh 11:00am - 12:15pm	ANS 0422

ENST499T **Special Topics in Environmental Science and Technology; Data Management and Analyses for Environmental Sciences**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

This course is an introduction to data management, analysis, and visualization using the R programming language. Class topics and examples will have an emphasis on problems in environmental science (both natural and social science examples). The course is broken down into three sections: 1. Working with Data, 2. Statistics and Modeling, and 3. Advanced Topics Classes will consist of short introductions to new concepts followed by hands-on computing exercises using R. No backgroundin programming is required. Students are encouraged to bring their own laptop, either Mac or PC, to this course.

0101	Henry Gallo TuTh 3:30pm - 4:45pm	Seats (Total: 13) ANS 0509

ENST499Y **Special Topics in Environmental Science and Technology; College Teaching**

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 5)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 4)
2106	Eni Baballari Contact instructor or department for details.	Seats (Total: 4)
2107	Jennifer Gunnulfsen Contact instructor or department for details.	Seats (Total: 4)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 4)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 4)
3201	Peter May Contact instructor or department for details.	Seats (Total: 4)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 4)

ENST608 **Research Methods**

(Perm req)

Development of research viewpoint by detailed study and report on crop and soil research of the Maryland Agriculture Experiment Station or review and discussion of literature on specific agricultural problems or new research techniques.

Contact department for information to register for this course.

ENST622 **Advanced Soil Microbial Ecology**

Prerequisite: ENST200; or 1 course in BCHM; or must have completed one course in microbiology; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T422. Credit only granted for: ENST422 or ENST622.

The interdisciplinary study of soil microorganisms and their interactions with the mineral matrix; resulting in processes such as nutrient cycling, decontamination, and natural product production. We will focus on the diversity of soil communities, their survival strategies, and the new strategies used to study these communities.The course will include an examination of current literature in this field.

0101	Stephanie Yarwood	Seats (Total: 9)	
	TuTh 9:30am - 10:45am	ANS 0422	

ENST630 Advanced Wetland Soils

Prerequisite: ENST200. Credit only granted for: ENST630, ENST430, or NRSC461.

The soils of wetlands including hydrology, biogeochemistry, and pedogenesis, including a focused discussion of current literature. Federal and regional guidelines for wetland soils are covered with an emphasis on validating interpretations through field observations.

0101	Martin Rabenhorst	Seats (Total: 6)	
	MW 2:00pm - 2:50pm	EGR 3114	
	M 3:00pm - 6:00pm	HJP 0210	Lab
	W 12:00pm - 12:50pm	ANS 1422	Discussion

ENST645 Water and Development: A Global Challenge

Prerequisite: MATH120, MATH220 or MATH140 (students who have taken courses with comparable content may contact the faculty). Credit only granted for: ENST689P or ENST645. Formerly: ENST689P.

Broad study of water systems by integrating elements of environmental sciences, engineering, and policy analysis. Explore several real-world case studies, focusing on practical approaches for developing and managing water resources and derivative services. Review advanced methodologies for quantitative and qualitative policy analysis. Design management policies pertaining to complex water systems.

0101	Masoud Negahban-Azar	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	ANS 1422

ENST689 Special Topics

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

1201	Andrew Baldwin	Seats (Total: 15)
	Contact instructor or department for details.	
1205	William Bowerman	Seats (Total: 15)
	Contact instructor or department for details.	

1401	Frank Coale Contact instructor or department for details.	Seats (Total: 15)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 15)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 15)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 15)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 15)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 15)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 15)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 15)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 15)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 15)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 15)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 15)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 15)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 15)

2601	David Tilley Contact instructor or department for details.	Seats (Total: 15)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 15)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 15)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 15)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 15)
3201	Peter May Contact instructor or department for details.	Seats (Total: 4)
3401	Jared Wilmoth Contact instructor or department for details.	Seats (Total: 10)
3601	Henry Gallo Contact instructor or department for details.	Seats (Total: 10)

ENST689L **Special Topics; Applied Hierarchical Modeling in Environmental Science**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

This course uses modern Bayesian statistical modeling approaches to analyze ecological and environmental data, with an emphasis on applied hierarchical models. This course will focus on models that are used to examine population and community dynamics, spatial patterns, species abundance and diversity, community organization, metapopulations, and landscape processes. To be successful in the course students should have taken a course in statistics and have working knowledge of the R programming language.

0101	Henry Gallo Tu 5:00pm - 7:30pm	Seats (Total: 20) ANS 0509

ENST689T **Special Topics; Data Management and Analyses for Environmental Sciences**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

This course is an introduction to data management, analysis, and visualization using the R programming language. Class topics and examples will have an emphasis on problems in environmental science (both natural and social science examples). The course is broken down into three sections: 1. Working with Data, 2. Statistics and Modeling, and 3. Advanced Topics Classes will consist of short introductions to new concepts followed by hands-on computing exercises using R. No backgroundin programming is required. Students are encouraged to bring their own laptop, either Mac or PC, to this course.

0101	Henry Gallo	Seats (Total: 10)	
	TuTh 3:30pm - 4:45pm	ANS 0509	

ENST689Z **Special Topics; Introductory University Instruction**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Contact department for information to register for this course.

ENST702 **Environmental Science and Technology: Communication and Professional Development**

Prerequisite: ENST602. Restriction: Must be in Environmental Science and Technology (Master's) program; or must be in Environmental Science and Technology (Doctoral) program; or permission of instructor.

Training in communication and professional development to prepare students to succeed in careers within the fields of environmental science and technology. Topics will include manuscript and technical writing, job search, communication with academic and non-academic audiences, multi-disciplinary collaboration, management (project, personnel, time), professionalism, leadership, ethics, and career opportunities. Course emphasizes practical training through facilitated discussions and critique practicums.

0101	Brian Needelman	Seats (Total: 12)	
	W 11:00am - 11:50am	ANS 1422	
	F 1:00pm - 2:50pm	ANS 1422	Discussion

ENST789 **Advances in Research**

A study of recent advances in agronomy research.

Contact department for information to register for this course.

ENST798 **Graduate Seminar**

(Perm req)

Designed to provide a venue for interactive discussion between ENST graduate students and other members of the ENST community regarding thesis/dissertation research planned or conducted as part of the students graduate program.

Restriction: Must be in one of the following programs (Environmental Science and Technology (Doctoral); Environmental Science and Technology (Master's)); or permission of AGNR-Environmental Science & Technology department.

0101	Martin Rabenhorst, Jared Wilmoth	Seats (Total: 40)
	W 3:00pm - 3:50pm	ANS 0408

ENST799 **Master's Thesis Research**
Contact department for information to register for this course.

ENST898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENTM Entomology Spring 2024

ENTM667 **Aquatic Entomology**

Biology, ecology, and taxonomy of aquatic insects in lotic and lentic habitats, their adaptation to aquatic life, their function in aquatic ecosystems, and their relationship to environmental deterioration.

0101	Bill Lamp	Seats (Total: 20)	
	Class time/details on ELMs	ONLINE	
	Tu 11:00am - 1:50pm	PLS 1161	Lab
	Class time/details on ELMs	ONLINE	Discussion

ENTM699G **Advanced Entomology; Sustainability of Socio-Environmental Systems**

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

Cross-listed with BISI699G. Credit only granted for ENTM699G or BISI699G. The seminar will begin with a focus on socio-environmental system dynamics, what they have in common with other complex adaptive systems and how solving environmental problems requires an integrated consideration of both the social and ecological dimensions. We will explore theories, concepts, and methods that different disciplines bring to this topic and learn about qualitative and quantitative approaches to grapple with problems of sustainability.

0101	Margaret Palmer	Seats (Total: 15)
	Contact instructor or department for details.	

ENTM699M **Advanced Entomology; Tools & Techniques in Genomics Research for the Applied Biologist-Part I**

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

0101	Megan Fritz	Seats (Total: 8)
	Meets January 24, 2024 - March 13, 2024	
	Contact instructor or department for details.	

ENTM699N **Advanced Entomology; Tools & Techniques in Genomics Research for the Applied Biologist-Part II**

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

0101	Megan Fritz	Seats (Total: 8)
	Meets March 14, 2024 - May 9, 2024	
	Contact instructor or department for details.	

ENTM699S **Advanced Entomology; Outreach Training**

(Perm req)

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

0101	Paula Shrewsbury	Seats (Total: 1)
	Contact instructor or department for details.	

ENTM720 **Native, Invasive, and Exotic Species**

This course will examine introduced species impact, how invasive and exotic species spread, their impact of native species and methods of invasive species control.

PLE1	Magdalene Ngeve	Seats (Total: 8)
	Meets February 26, 2024 - May 17, 2024	
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Program in Applied Entomology. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

ENTM725 **IPM Practices**

Introduction to the techniques of integrated pest management for proper pest control management. Integrated Pest Management (IPM) has been the most successful management paradigm for agriculture, forestry, and urban pest management for more than five decades. Students will learn the fundamental elements of IPM programs including recognition and monitoring of key pests, formation of decision-making guidelines, intervention tactics, and fundamentals of assessment.

PLE1	Galen Dively	Seats (Total: 8)	
	Meets February 26, 2024 - May 17, 2024		
	Class time/details on ELMs	ONLINE	
	Must be in the Graduate Program in Applied Entomology. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

ENTM788C **Entomological Topics; Colloquium**

One lecture or one two-hour laboratory period a week for each credit hour. Lectures, group discussions or laboratory sessions on selected topics such as: aquatic insects, biological control of insects, entomological literature, forest entomology, history of entomology, insect biochemistry, insect embryology, immature insects, insect behavior, insect communication, principles of entomological research.

0101	Dennis vanEngelsdorp	Seats (Total: 45)	
	F 12:00pm - 12:50pm	PLS 1140	
	F 1:00pm - 1:50pm	Location: TBA	Discussion

ENTM798D **Topic Seminar; Arthropod Pests of Agricultural Crops**

Discussion and presentation of current research and literature.

This seminar presents a survey of the biology, economic impact, and control tactics used to manage the major pests of crops grown in the US.

0101	Galen Dively	Seats (Total: 8)
	Contact instructor or department for details.	

ENTM799 **Master's Thesis Research**
Contact department for information to register for this course.

ENTM898 **Pre-Candidacy Research**
Contact department for information to register for this course.

ENTM899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ENTS Telecommunications Spring 2024

ENTS625 **Management and Organizational Behavior in the Telecommunications Industry**

Roles of the general manager in: determining target markets and designing strategies for them; formulating and implementing corporate and business level strategies; and staffing, developing, and managing human resources and coordinating them with the organization's financial and physical resources. Also emphasizes the building of interpersonal skills with respect to the selection of members for work teams and team formation, leadership of teams toward the achievement of strategic goals and total quality, the development and motivation of team members, and the evaluation of team and individual performance.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Clarence Wesley	Seats (Total: 40)
	M 5:30pm - 8:15pm	SQH 1103

ENTS632 **Telecommunications Marketing Management**

Restriction: Must be in Telecommunications (Master's) program.

Topics covered include strategic marketing, sales and customer service challenges confronting organizations in the computer, communications and media industries. The course also addresses volatile technology, regulatory and competitive environments as a backdrop to strategic planning and management in the marketing domain.

Restricted to ENTS majors. All non-majors will need to obtain department permission.

0101	Henry Boyd	Seats (Total: 40)
	W 2:00pm - 4:45pm	TWS 0205

ENTS641 **Networks and Protocols II**

Prerequisite: ENTS640. Restriction: Must be in Telecommunications (Master's) program.

Techniques for the specification, design, analysis, verification and testing of communication protocols are discussed. The course includes detailed discussion on routing protocols in the Internet. This includes Routing Information Protocol (RIP), Enchanced Interior Gateway Routing Protocol (EIGRP). Open Shortest Path First (OSPF), and Border Gateway Protocol (BGP4).

0101	Mehdi Kalantari Khandani	Seats (Total: 40)
	Th 5:30pm - 8:15pm	CHM 2201

ENTS656 **Introduction to Cellular Communication Networks**

Concepts and techniques involved in wireless digital communications with emphasis on cellular and PCS systems. Properties of Mobile radio channels; intersymbol interference, multipath, and fading effects; interleaving and diversity; multiple access schemes (TDMA, FDMA, CDMA); interuser interference, traffic issues, and cell capacity; power control strategies; frequency reuse and channel assignment; handoff, paging, and location update; cell layout; introduction to cellular and PCS standards.

Restricted to ENTS majors.

0101	Michael Dellomo Tu 5:30pm - 8:15pm W 5:30pm - 8:15pm	Seats (Total: 24) MTH 0104 AVW 1458	 Lab

ENTS669D **Special Topics in Computing; Introduction to Machine Learning**

Selected topics of current importance in computing.

0101	Joseph JaJa MW 2:00pm - 3:15pm	Seats (Total: 36) AJC 2132

ENTS669J **Special Topics in Computing; Internet of Things Lab**

Selected topics of current importance in computing.

Prerequisites: For ENTS Program students only

0101	Michael Dellomo Th 2:00pm - 4:45pm	Seats (Total: 18) AVW 1334

ENTS669K **Special Topics in Computing; AI Applications for 6G**

Selected topics of current importance in computing.

Restriction: Must be in the Masters in Telecommunications (ENTS) program.

0101	Alejandra Mercado F 9:00am - 11:45am	Seats (Total: 24) AVW 1458

ENTS689F **Special Topics in Telecommunications; Fundamental of Wireless LANs**

Selected topics of current importance in telecommunications.

0101	Rikin Thakker F 2:00pm - 4:45pm	Seats (Total: 30) EGR 2116

ENTS699 **Independent Study in Telecommunications**

(Perm req)

Individual instruction course. See ENTS program office for section number.

0101	Michael Dellomo Contact instructor or department for details.	Seats (Total: 1)

ENTS699M **Independent Study in Telecommunications; Python Programming**

(Perm req)

Individual instruction course. See ENTS program office for section number.

0101	Michael Dellomo	Seats (Total: 10)
	Contact instructor or department for details.	

ENTS749E **Advanced Topics in Networking; Network Automation**

Selected advanced topics in networking.

0101	Zoltan Safar	Seats (Total: 18)
	W 9:00am - 11:45am	AVW 1442

ENTS749F **Advanced Topics in Networking; Security in Cloud Computing**

Selected advanced topics in networking.

0101	Zoltan Safar	Seats (Total: 18)
	F 5:30pm - 8:15pm	AVW 1442

EPIB Epidemiology and Biostatistics Spring 2024

EPIB301 **Epidemiology for Public Health Practice**

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

As agreed to during your change of major workshop or orientation to PHSC: - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 9:00am - 9:50am	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0102	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 11:00am - 11:50am	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0104	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 12:00pm - 12:50pm	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 2:00pm - 2:50pm	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 3:00pm - 3:50pm	BRB 1101 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0108	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	BRB 1101 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0109	Typhanye Dyer	Seats (Total: 23)	
	TuTh 2:00pm - 2:50pm W 3:00pm - 3:50pm	BRB 1101 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0201	Typhanye Dyer	Seats (Total: 20)	
	TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	BRB 1101 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		
0202	Typhanye Dyer	Seats (Total: 20)	
	TuTh 2:00pm - 2:50pm W 3:00pm - 3:50pm	BRB 1101 PLS 1168	Discussion
	Restricted to students in the Behavioral and Community Health major.		

ESG1	Lauren Kauffman Tu 1:30pm - 3:30pm Class time/details on ELMs	Seats (Total: 35) BLD3 4211 ONLINE	
	Restricted to Shady Grove students in the Public Health Science major.		

EPIB315 **Biostatistics for Public Health Practice**

Prerequisite: Minimum grade of C- in EPIB301; or must have completed or be concurrently enrolled in HLTH200. Restriction: Must be in one of the following programs (Public Health Science; Community Health). Credit only granted for: EPIB300 or EPIB315. Formerly: EPIB300. Additional information: Course is cross-listed; students should check program advising information to determine which counts for their major. Note that EPIB300 (old number) is still offered for students under previous curriculum.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during your change of major workshop or orientation to PHSC: - PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. - PHSC students who declared their major DURING the spring 2018 semester and later are required to take EPIB301 before EPIB315.

0101	Jamie Trevitt TuTh 11:00am - 11:50am M 8:00am - 9:50am	Seats (Total: 19) KEY 0106 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major.		
0102	Jamie Trevitt TuTh 11:00am - 11:50am M 10:00am - 11:50am	Seats (Total: 19) KEY 0106 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major.		
0103	Jamie Trevitt TuTh 11:00am - 11:50am M 12:00pm - 1:50pm	Seats (Total: 19) KEY 0106 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major.		
0104	Jamie Trevitt TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	Seats (Total: 19) KEY 0106 SPH 0116B	 Lab
	Restricted to College Park students in the Public Health Science major.		

0105	Jamie Trevitt TuTh 11:00am - 11:50am F 8:00am - 9:50am	Seats (Total: 19) KEY 0106 ATL 1434	 Lab
	Restricted to College Park students in the Public Health Science major.		
0106	Jamie Trevitt TuTh 11:00am - 11:50am F 10:00am - 11:50am	Seats (Total: 19) KEY 0106 ATL 1434	 Lab
	Restricted to College Park students in the Public Health Science major.		
0107	Jamie Trevitt TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	Seats (Total: 19) KEY 0106 ATL 1434	 Lab
	Restricted to College Park students in the Public Health Science major.		
0108	Jamie Trevitt TuTh 11:00am - 11:50am F 2:00pm - 3:50pm	Seats (Total: 19) KEY 0106 ATL 1434	 Lab
	Restricted to College Park students in the Public Health Science major.		
0201	Jamie Trevitt TuTh 11:00am - 11:50am M 4:00pm - 5:50pm	Seats (Total: 20) KEY 0106 SPH 0116B	 Lab
	Restricted to students in the Behavioral and Community Health major.		
0202	Jamie Trevitt TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	Seats (Total: 20) KEY 0106 HBK 0108	 Lab
	Restricted to students in the Behavioral and Community Health major.		

EPIB330 **Introduction to Infectious Disease Epidemiology**

Prerequisite: EPIB301.

Introduces students to the study of infectious disease through the application of epidemiologic methods. Students will review how infectious diseases impact global health, and examine epidemiological concepts related to infectious disease. These concepts include infectious disease transmission, prevention and control; study design; and outbreak and epidemic investigations. Infectious disease topics of concern to public health professionals will be covered including the COVID-19 pandemic, sexually transmitted infections, foodborne infections, healthcare-acquired infections and neglected tropical diseases, and future trends in the field of infectious diseases.

0101	Steven Ault	Seats (Total: 24)
	TuTh 2:00pm - 3:15pm	SPH 0307

EPIB399 **Epidemiology and Biostatistics Independent Study**

The EPIB undergraduate independent study is an opportunity for undergraduates from other departments in the SPH or the university to work with an Epidemiology and Biostatistics faculty member on research or special projects that are based out of EPIB.

Contact department for information to register for this course.

EPIB463 **Introduction to Biostatistical Programming**

An introduction to basic programming principles; data analysis tasks such as the calculation of summary statistics and the creation of graphs; and the implementation of statistical analysis concepts such as T-tests, ANOVA and correlation. Querying and managing data sets using SQL in SAS will also be covered.

0101	Menglu Liang	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ATL 1114
	Restricted to College Park students in the Public Health Science major (code: 12140).	

EPIB611 **Intermediate Epidemiology**

(Perm req)

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB610); or a minimum score of 70% on the SPHL602 or EPIB610 waiver exam.

Analysis of epidemiologic methods as applied to epidemiologic research, analysis of bias, confounding, effect modification issues, overview of design, implementation, and analysis of epidemiologic studies.

0101	Jessica Keralis	Seats (Total: 20)
	Th 4:00pm - 6:45pm	ATL 1434

EPIB622 **Social Determinants of Health**

Prerequisite: Must have completed or be concurrently enrolled in SPHL602; or EPIB610.

Overview of the major social variables that affect public health, including socioeconomic status, poverty, income distribution, race, social networks/support, community cohesion, psychological stress, gender, and work and neighborhood environment.

0101	Thu Nguyen	Seats (Total: 20)
	W 1:00pm - 3:45pm	ATL 1434

EPIB637 **Social Epidemiologic Methods in Health Equity Research**

Prerequisite: SPHL602 or permission of instructor.

Provides students with the knowledge and skills to design and implement social epidemiology studies related to investigating health inequities. Presents an overview of drivers of health inequities (e.g., racism, socioeconomic status) and conceptual and methodological challenges in empirically investigating these social determinants of health including issues related to confounding, selection bias, measurement error, and evaluation of mechanisms. Covers methodological approaches that can be used to address these challenges including instrumental variable analyses, difference-in-differences, mediation analyses using inverse odds ratio weighting, and qualitative analyses. This knowledge will be applied to exploring research questions of your choice. The course will foster a co-learning environment and recognize the value and strength of interdisciplinary perspectives. Curiosity and critical thinking are encouraged and supported.

0101	Thu Nguyen Th 1:00pm - 3:45pm	Seats (Total: 20) ATL 1434

EPIB651 **Applied Regression Analysis**

(Perm req)

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB650); or a minimum score of 70% on the SPHL602 or EPIB650 waiver exam. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

An introduction to important statistical methods used in public health research, including nonparametric hypothesis testing, ANOVA, simple and multiple linear regression, logistic regression, and categorical data analysis.

0101	Zeynep Kacar Tu 4:00pm - 6:45pm	Seats (Total: 25) ATL 1434
PLY1	Zeynep Kacar Class time/details on ELMs	Seats (Total: 6) ONLINE

EPIB653 **Applied Survival Data Analysis**

(Perm req)

Prerequisite: EPIB651.

Overview of statistical methods for anlayzing censored survival data, including the Kaplan-Meier estimator, the log-rank test, Cox PH model.

0101	Xin He Tu 1:00pm - 3:45pm	Seats (Total: 20) ATL 1434

EPIB664 **Missing Data Analysis**

Recommended: Previous experience with at least one statistical software (e.g. SAS, R, STATA).

Missing data is a common problem in almost all scientific fields. Students will learn the different patterns and mechanisms of missing data, common procedures to handle missingness including weighting procedure, imputation-based procedure and model-based procedure. Useful and popular imputation methods and tools will be introduced. Numerous real data examples will be included to help students understand and solve the real world problem with missing data for different study designs.

0101	Yulei He	Seats (Total: 20)
	M 4:00pm - 6:45pm	ATL 2416

EPIB778 **Practical Experience in Public Health**

(Perm req)

Practice experience providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practice experience will depend upon the student's background and career goals.

Contact department for information to register for this course.

EPIB786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Permission of SPHL-Epidemiology & Biostatistics department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

EPIB788 **Critical Readings in Epidemiology and Biostatistics**

Open to master and doctoral students to discuss critical readings in Epidemiology and Biostatistics.

0101	Instructor: TBA	Seats (Total: 20)
	W 11:00am - 12:45pm	Location: TBA

EPIB798 **Independent Study**

(Perm req)

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

EPIB799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

EPIB898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

EPIB899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

FGSM Federal and Global Fellows Spring 2024

FGSM398 **Federal and Global Experiential Learning**

(Perm req)

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

Cross-listed with HNUH398P. Credit only granted for FGSM398 or HNUH398P.

0101	Jayakumar Arasan, Joan Burton, Sabrina Labold M 6:30pm - 7:40pm	Seats (Total: 120) ESJ 1202
0201	Joan Burton, Jayakumar Arasan, Sabrina Labold Th 6:30pm - 7:40pm	Seats (Total: 120) ESJ 1202

FIRE First-Year Innovation & Research Experience Spring 2024

FIRE198 **FIRE SEMESTER 2**

This is the second course in the FIRE (First-Year Innovation & Research Experience) program sequence. Students in this course join a research stream and gain discipline-specific training in that lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.

FIRE students interested in joining a stream must enroll in that stream's corresponding section of FIRE198.

0101	Catherine Spirito Th 3:30pm - 4:20pm Contact instructor or department for details. *Molecular Diagnostics*	Seats (Total: 24) ATL 2339
0102	Danielle Niu W 4:00pm - 4:50pm Contact instructor or department for details. *Project Greenhouse*	Seats (Total: 32) ATL 2339

0103	Cherisse Hall, Halli Weiner, Quira Zeidan Th 2:00pm - 2:50pm Contact instructor or department for details. *Bacterial Pathogenesis*	Seats (Total: 32) ATL 2339
0104	Jessica O'Hara W 11:00am - 11:50am Contact instructor or department for details. *Host-Pathogen Interactions*	Seats (Total: 32) ATL 2339
0105	Quira Zeidan W 12:00pm - 12:50pm Contact instructor or department for details. *CellEx*	Seats (Total: 32) ATL 2339
0106	Halli Weiner W 1:00pm - 1:50pm Contact instructor or department for details. *Fertility Science*	Seats (Total: 32) ATL 2339
0107	Benjamin Huffman W 2:00pm - 2:50pm Contact instructor or department for details. *Global Development & Design*	Seats (Total: 40) ATL 2339
0108	Elizabeth Massey Tu 9:30am - 10:20am Contact instructor or department for details. *Music & Social Identity*	Seats (Total: 40) ATL 2339
0109	Shannon Hilton W 3:00pm - 3:50pm Contact instructor or department for details. *Rapid Diagnostics*	Seats (Total: 40) ATL 2339
0110	Jaclyn Bruner Th 11:00am - 11:50am Contact instructor or department for details. *Visualizing Social Justice*	Seats (Total: 40) ATL 2339

0111	Mary Chey Tu 3:30pm - 4:20pm Contact instructor or department for details. *Gene Silencing*	Seats (Total: 32) ATL 2339
0112	Thanicha Ruangmas Tu 11:00am - 11:50am Contact instructor or department for details. *Sustainability Analytics*	Seats (Total: 40) ATL 2339
0113	Kristina Kramarczuk Th 9:30am - 10:20am Contact instructor or department for details. *Computing & Society*	Seats (Total: 40) ATL 2339
0114	Shabnam Jabeen Tu 2:00pm - 3:15pm Contact instructor or department for details. *Quantum Machine Learning*	Seats (Total: 40) ATL 2339
0115	Sara Strey Th 12:30pm - 1:20pm Contact instructor or department for details. *Climate Computing*	Seats (Total: 40) ATL 2339
0116	Lena Johnson Tu 12:30pm - 1:20pm Contact instructor or department for details. *BioInspired Robotics*	Seats (Total: 40) ATL 2339

FIRE398 **FIRE Research Leadership**

Earn academic credit for the time spent supporting, mentoring, and leading students in FIRE Research streams.

0101	Catherine Spirito Class time/details on ELMs *Molecular Diagnostics*	Seats (Total: 15) ONLINE
0102	Danielle Niu Class time/details on ELMs *Project Greenhouse*	Seats (Total: 15) ONLINE

0103	Halli Weiner, Cherisse Hall, Quira Zeidan Class time/details on ELMs *Bacterial Pathogenesis*	Seats (Total: 15) ONLINE
0104	Jessica O'Hara Class time/details on ELMs *Host-Pathogen Interactions*	Seats (Total: 15) ONLINE
0105	Quira Zeidan Class time/details on ELMs *CellEx*	Seats (Total: 15) ONLINE
0106	Halli Weiner Class time/details on ELMs *Fertility Science*	Seats (Total: 15) ONLINE
0107	Benjamin Huffman Class time/details on ELMs *Global Design & Development*	Seats (Total: 15) ONLINE
0108	Elizabeth Massey Class time/details on ELMs *Music & Social Identity*	Seats (Total: 15) ONLINE
0109	Shannon Hilton Class time/details on ELMs *Rapid Diagnostics*	Seats (Total: 15) ONLINE
0110	Jaclyn Bruner Class time/details on ELMs *Visualizing Social Justice*	Seats (Total: 15) ONLINE
0111	Mary Chey Class time/details on ELMs *Gene Silencing*	Seats (Total: 15) ONLINE
0112	Thanicha Ruangmas Class time/details on ELMs *Sustainability Analytics*	Seats (Total: 15) ONLINE

0113	Kristina Kramarczuk Class time/details on ELMs *Computing & Society*	Seats (Total: 15) ONLINE
0114	Shabnam Jabeen Class time/details on ELMs *Quantum Machine Learning*	Seats (Total: 15) ONLINE
0115	Sara Strey Class time/details on ELMs *Climate Computing*	Seats (Total: 15) ONLINE
0116	Lena Johnson Class time/details on ELMs *BioInspired Robotics*	Seats (Total: 15) ONLINE

FMSC Family Science Spring 2024

FMSC110 **Families and Global Health**

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Zeina Alkhalaf TuTh 12:30pm - 1:45pm	Seats (Total: 45) ONLINE

FMSC123 **Personal Financial Literacy: From Distress to Success**

Exploring strategic thinking, career, education, financial planning during college years as the foundation for success in living a meaningful life. While introducing relevant institutions and tools & techniques that are critical for financial planning, this course applies value-based goal setting and strategic planning that inform individuals' paths for a successful career, educational attainment, and optimum (mental, physical and financial) wellbeing throughout their life cycle. The course particularly emphasizes the individual's responsibility of living in an institution rich society, where, continuous learning, understanding institutions, rational decision-making, valuing relationships and networking, early career development, record keeping, budgeting, generating income and wealth, purposeful spending, saving and investing, tax planning, appropriate use of loans, risk taking and insurance, and retirement planning are well rewarded and ensure the optimum use of college years and the rest of life-course.

0101	Manouchehr Mokhtari Class time/details on ELMs	Seats (Total: 40) ONLINE

FMSC177 **U SAD? Coping with Stress, Anxiety, and Depression**

Students on UMD campus experience new challenges to their mental health and well-being every semester, and there are limited resources to help students manage their own health or to support their peers. This experiential skill development workshop course is designed to assist students in developing their knowledge in ways to recognize, manage, and cope with symptoms of stress, anxiety, and depression. There is a focus on coping with pandemic-related and course-related concerns, relationship issues, and a range of other student concerns.

0101	Coda Gerber **Meets January 29, 2024 - March 13, 2024** M 1:00pm - 2:30pm Contact instructor or department for details.	Seats (Total: 30) SPH 0308
0102	Coda Gerber **Meets March 14, 2024 - May 9, 2024** M 1:00pm - 2:30pm Contact instructor or department for details.	Seats (Total: 30) SPH 0308

FMSC190 **Man Up! Where Are The Fathers?**

An examination of changing fatherhood roles, health, and inequality in diverse families. Focus will be on masculinities and disparities among men by race and class; provider role expectations; and trauma and violence faced by men in contemporary society.

0101	Kevin Roy MWF 10:00am - 10:50am	Seats (Total: 48) SPH 0302

FMSC215 **Foster Care and Adoption; Law, Policy, and Family**

In this Student Initiated Course, students will examine their preconceived notions of foster care and adoption as they work to become agents for change in the systems. Regular guest speakers will share their experiences. Along with your student instructor you'll explore various outcomes of the systems including trauma, mental health and later-life outcomes. Your faculty instructor will encourage you to critically think about legal and policy issues, both in Maryland and internationally, like the foster to prison pipeline and adopting from other cultures. Students will examine contentious issues like legal interventions, LGBTQ, Native American Indian, transracial, religious and others relating to the systems and the socioeconomic impacts on families. Classes are student-driven and discussion-based, allowing students to explore ethical considerations and possible life paths.

0101	Kerry Tripp M 10:00am - 11:00am	Seats (Total: 25) ONLINE

FMSC260 **Couples, Marriage, and Families: Intimate Relationship Across the Life Course**

Covers the different aspects of couple relationships and family life. This includes common problems in couple relationships, and resources to strengthen couple and family relationships. You will also learn about stages of relationships, theories of love and family, policy related to couples and family formation, and how research is conducted with couples and families. Together, we will discuss and explore issues that couples and families face in modern times and will consider how many of these issues have changed due to policy, technology, attitudes, and a variety of other societal factors that impact relationships in the 21st century. You will also learn important methods of strengthening current and future relationships.

Restricted to majors or non-majors with less than or equal to 60 credits.

0201	Zachary Berman	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	SPH 1303

FMSC265S **Teaching Menstrual Health: Dispelling Myths and Misconceptions**

Provides a platform to teach UMD undergraduate students and BHU Bachelor of Education students about the intersections of gender, culture, and health. We will explore how menstruation is addressed in different cultures and uncover myths and misconceptions that impact individuals, their families and communities. Furthermore, the course emphasizes the health cost (physical and mental) of not educating youth about this vital process and discusses the need for an intervention. The course provides essential skills to participating students for the development of an intervention. Key concepts include: theoretical understanding of menstrual health and its impact on girls and women's lives from cross cultural perspectives, the importance of deconstructing myths and misconceptions and the importance of educating both girls and boys; cultural taboos and patriarchal power relations that contribute to myths, misconceptions and practices; public health interventions addressing the cost of ignoring adolescent health issues including menstrual health; the impact of providing agency to young girls and boys to challenge the status-quo; and links between knowledge about menstruation, human rights, gender equality and the SDGs.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration.

Click here to learn more about Global Classrooms.

0101	Elisabeth Maring	Seats (Total: 20)
	Tu 8:00am - 9:15am Th 8:00am - 9:15am	HJP 1102 ONLINE

FMSC302 **Research Methods in Family Science**

Prerequisite: Must have completed an introductory statistics course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC302 or FMST302. Formerly: FMST302.

Introduction to the methods of the social and behavioral sciences employed in family science. The role of theory, the development of hypotheses, measurement, design, and data analysis.

0101	Sahra Ibrahimi TuTh 9:30am - 10:45am	Seats (Total: 55) SQH 1117

FMSC310 **Maternal, Child and Family Health**

Credit only granted for: FMSC310, FMSC410 or FMSC498A. Formerly: FMSC498A and FMSC410. Additional information: A comprehensive understanding of maternal, child, and family health, with additional emphasis on environmental health, needs assessment and evaluation, enabling students to more effectively address issues in the workplace.

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

0201	Izidora Skracic TuTh 11:00am - 12:15pm	Seats (Total: 40) ONLINE
0301	Julia Steinberg MW 11:00am - 12:15pm	Seats (Total: 40) SPH 0302
0401	Lindsay Mallick TuTh 9:30am - 10:45am	Seats (Total: 40) SPH 1301
0501	Izidora Skracic TuTh 8:00am - 9:15am	Seats (Total: 40) ONLINE

FMSC330 **Family Health: Health Happens in Families**

Restriction: Junior standing or higher.

The objective of this gateway course is to help you understand and apply basic theories and empirical data on family health. The course is designed to provide you with skills to think critically about theories including: Life Course Theory, the Bio-Ecological and Social-Ecological Models, and Systems Theory. We will ask questions about the distinct qualities and intersections of contexts and characteristics that impact the functioning of families. We will apply theory and research to topical issues in family health that are impacted by social structures such as conflict, crisis, migration, incarceration and inequalities.

0201	Zeina Alkhalaf MW 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 60) ONLINE ONLINE
0301	Colton Kilpatrick TuTh 12:30pm - 1:45pm	Seats (Total: 60) SPH 1303

FMSC332 **Children in Families**

Prerequisite: PSYC100 or FMSC105. Credit only granted for: FMSC332 or FMST332. Formerly: FMST332.

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

0201	Martha Yumiseva TuTh 12:30pm - 1:45pm	Seats (Total: 40) SPH 0308
0301	Christine Schull MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 45) SPH 0308 ONLINE

FMSC340 **Mental Health and Healing in Families**

Using an interdisciplinary approach to study mental health, mental wellness, and substance use, we will answer questions such as: How has our understanding and treatment of mental health changed throughout history? What are the current prevalence patterns and risk factors associated with mental health conditions? What is the prevention to postvention continuum? What is the role of relationships, families, and communities in addressing mental health? How do we diagnose and treat various mental health disorders using the best available research? And, what are the various mental health disciplines and how do they differ? This course is designed to examine mental health issues across the life course. We will explore the influence of social contexts, including racism and additional forms of othering, on mental health and wellness, and introduce the health systems that support mental health prevention and treatment.

0101	Salwa Shan TuTh 9:30am - 10:45am	Seats (Total: 50) SPH 1303

FMSC341 **Personal and Family Finance**

Credit only granted for: FMSC341 or FMST341. Formerly: FMST341.

Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

0101	Manouchehr Mokhtari Class time/details on ELMs	Seats (Total: 48) ONLINE
ESG1	Manouchehr Mokhtari Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 50) ONLINE

FMSC374 **Working with Diverse Families in Public Health Services**

Prerequisite: FMSC110.

Focuses on the "doing" and modeling of skills required in navigating diverse social environments with families. These skills are necessary to engage in authentic work as family scientists, public health professionals, and family health practitioners. Using an intersectional framework, we will examine cultural, ethnic, and linguistic diversity for families impacted by challenges to equity and privilege. The course material emphasizes deep knowledge and skill building towards cultural sensitivity, including history, values, language, religion, and communication with families across multiple racial and ethnic backgrounds. Students will also explore differences emerging from experiences of poverty, sexual orientation and gender identity, and disability. The goal of the course is to support students in developing a family/professional alliance for health and well-being.

0101	Rabiatu Barrie TuTh 9:30am - 10:45am	Seats (Total: 35) PLS 1111

FMSC381 **Family Inequality**

Prerequisite: SOCY100 or SOCY105. Restriction: Must be in a major within SPHL-Family Science department.

Social, political, cultural and economic factors influencing income and wealth in American families.

0101	Natasha Williams MWF 9:00am - 9:50am	Seats (Total: 35) ONLINE

FMSC383 **Health and Human Services Delivery and Evaluation**

Prerequisite: FMSC330. Restriction: Must be in a major within SPHL-Family Science department.

Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

0101	Ghaffar Hurtado Choque MWF 11:00am - 11:50am	Seats (Total: 60) SPH 1303

FMSC399 **Independent Study**

(Perm req)

Contact department for information to register for this course.

FMSC431 **Family Crises, Emergencies and Interventions**

Prerequisite: PSYC100.

Examines the stressors in life that may lead families into a state of crisis or emergency and what can be done to help families when the need arises. Both internal stressors, such as substance abuse, finances, divorce, illness or parent-child conflict, and external stressors, such as community violence and natural disasters, are examined. Using theories and techniques for intervention and enhancement, the course examines factors involved in stressors turning into a family crisis and how factors such as emergency preparedness, social support and public policy can be a source of family resilience or protect families from negative outcomes.

0201	Mona Mittal TuTh 11:00am - 12:15pm	Seats (Total: 45) SPH 1302

FMSC432 **Adult Development and Aging in Families**

Prerequisite: PSYC100; and (SOCY100 or SOCY105). And FMSC332; or must have completed a comparable development course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC432 or FMST432. Formerly: FMST432.

Theory, research, history, and programming related to adult development and aging in the intergenerational context of family.

0101	Christine Schull MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 45) SPH 0308 ONLINE

FMSC460 **Violence in Families**

Prerequisite: SOCY100, SOCY105, or PSYC100. Credit only granted for: FMSC460 or FMST460. Formerly: FMST460.

Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

0101	Christine Schull MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 50) SPH 1303 ONLINE

FMSC477 **Internship and Analysis in Family Science**

(Perm req)

Prerequisite: FMSC383; and 9 credits in FMSC courses; and permission of SPHL-Family Science department. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC477, FMST347, or FMST477. Formerly: FMST477.

A supervised internship and a seminar requiring analysis. Opportunities to integrate theory and practice including 120 hours of contracted field experience. Summer or fall internship contracts due May 1; Spring contracts due December 1. See department for application procedures.

Instructor will provide further details on meeting dates in ELMS.

Click here for Application Deadlines and additional details..

0101	Rebecca Foss W 3:00pm - 4:30pm Class time/details on ELMs	Seats (Total: 60) PLS 1130 ONLINE

FMSC485 **Introduction to Family Therapy**

Prerequisite: FMSC330; or 1 course from PSYC300-499 course range. Credit only granted for: FMSC485 or FMST485. Formerly: FMST485.

The fundamental theoretical concepts and clinical procedures of marital and family therapy including premarital and divorce therapy issues.

0101	Tiara Fennell M 3:00pm - 5:30pm	Seats (Total: 40) SPH 1302

FMSC487 **Family Law**

Designed for students interested in studying the law, public health, and family science, this course provides students with a general overview of family law and the impact on healthy families. The course also includes the study of cutting-edge issues such as marriage equality, assisted reproduction and ethical issues that may arise.

0101	Kerry Tripp Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 49) HBK 0103 ONLINE

FMSC498 **Special Topics: Family Science; Family Studies**

(Perm req)

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498H **Special Topics: Family Science; Family Studies Honors Thesis**

(Perm req)

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498P **Special Topics: Family Science**

Special course topics in family studies.

Cross-listed with PLCY388A. Credit only granted for PLCY388A or FMSC498P. For poor and low-income families, federal programs such as Medicaid, Child care, SNAP and child nutrition programs are a lifeline every day. Some programs also have policies that consider more than income eligibility, such as number of hours of work, disability, and immigration status. Budget choices have a significant impact on policy intentions. Students will learn about and analyze the major federal programs and federal budgets for these policy areas; understand from data the impact of such programs and policies; and be introduced to significant advocacy effortsand considerations that shaped these policy decisions.

0101	Brandi Slaughter TuTh 3:30pm - 4:45pm	Seats (Total: 40) TMH 0225

FMSC610 **Research Methods in Family Science**

(Perm req)

Prerequisite: EDMS645; or students who have taken courses with comparable content may contact the department. Credit only granted for: FMSC610 or FMST610. Formerly: FMST610.

Research methods in family science. The role of theory, design, use of qualitative and quantitative measurement techniques, data collection and data analysis. Development of research proposals.

Restriction: Permission of SPHL-Family Science Department

0101	Laura Golojuch Th 1:00pm - 3:45pm	Seats (Total: 15) Location: TBA

FMSC641 **Couples Therapy, Theory, and Techniques**

(Perm req)

Prerequisite: FMSC640. Credit only granted for: FMSC641 or FMSC641. Formerly: FMST641.

Overview of theoretical models of couple relationships and methods of facilitating growth and interaction within those relationships. Emphasis on couples with conflicting needs and expectations, and dysfunctional communication and conflict negotiation skills.

Restriction: Permission of SPHL-Family Science Department

0101	Marjorie Nightingale Th 9:00am - 11:45am	Seats (Total: 15) Location: TBA

FMSC651 **Treatment of Emotional and Mental Disorders in Family Systems**

(Perm req)

Prerequisite: FMSC650. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course is designed to assist beginning therapists in developing their knowledge of the major theoretical approaches to family therapy and applying those approaches to their clinical work. In addition, the course addresses many procedural, professional, and ethical issues often faced by beginning therapists. Towards these ends, the primary foci of the course will be on developing competencies in (a) observing family process, (b) assessing and conceptualizing family strengths and problems from different theoretical models, and (c) developing treatment plans from these different theoretical models. Finally, attention will also be given to therapist self-care.

Restriction: Permission of SPHL-Family Science Department

0101	Laura Golojuch	Seats (Total: 15)
	Tu 9:00am - 11:45am Contact instructor or department for details.	Location: TBA

FMSC653 **Advanced Application of CFT Models and Techniques**

(Perm req)

Prerequisite: FMSC652. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course is an integration of advanced assessment, diagnosis, and treatment procedures with couples, families, individuals, and groups. Emphasis will be on the following areas: (1) the advanced study of classic and emerging CFT models; (2) special topic areas (e.g., trauma, religious differences, grief & loss, family rituals,) and/or collaborative CFT in varied settings (e.g., schools, medical facilities, in-home/family preservation work, foster care, alcohol & drug centers); (3) development of a personal theory/philosophy of family therapy along with a case management system for that model. Additionally, development of the self of therapist, contributions to CFT as a profession, and employment as well as independent practice information including resume development, licensing laws and regulations in Maryland and other states will be explored. Also, procedures for preparing for the National MFT licensing exam will be discussed. Advanced professional practice will be demonstrated in case presentations related to the specific areas emphasized in the course.

Restriction: Permission of SPHL-Family Science Department

0101	Erica Turner	Seats (Total: 15)
	Tu 10:00am - 12:45pm Contact instructor or department for details.	SPH 0225

FMSC658 **Supervised Clinical Practice in Couple and Family Therapy; Theory and Practice of Clinical Supervision**

(Perm req)

This course is designed to provide supervision of family, couple, and individual therapy client contact. This course is limited to, and required of, all students admitted to the Couples and Family Therapy (CFT) Program. Supervision utilizes various family systems models and differing methods are employed.

Restriction: Permission of SPHL-Family Science Department

0101	Tiara Fennell W 9:00am - 11:45am	Seats (Total: 20) Location: TBA

FMSC689 **Research Internship**

(Perm req)

Research experience resulting in a scholarly article suitable for publication in a peer-reviewed journal.

Contact department for information to register for this course.

FMSC698 **Advanced Topics in Family Science**

(Perm req)

Arranged group study on specific topic which may vary from term to term.

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC699 **Independent Study**

(Perm req)

Contact department for information to register for this course.

FMSC720 **Study Design in Maternal Child Health Epidemiology**

(Perm req)

Prerequisite: EPIB610. Restriction: Permission of the Family Sciences department. Credit only granted for: EPIB612 or FMSC720.

A detailed survey of key epidemiologic study designs provided through readings, lectures, and exercises. Lectures begin by considering the evolution of epidemiologic thought and parallel developments in design of epidemiologic studies. Topics covered include assessment of causality in observational studies, investigation of acute outbreaks, survey design, cohort and case-control study designs, clinical randomized trials, and discussion of issues pertaining to measurement error in the assessment of exposures and outcomes in epdemiologic studies.

Restriction: Permission of SPHL-Family Science Department

0101	Meagan Robinson Maynor Tu 1:00pm - 3:45pm	Seats (Total: 15) ONLINE

FMSC780 **Qualitative Methods in Family and Health Research**

(Perm req)

Restriction: Permission of the Family Sciences department. Credit only granted for: FMSC780 or FMST780. Formerly: FMST780.

Theoretical perspectives and methodological tools to conduct research with individuals and families across the life span. Review of research designs, participant fieldwork, observation and interview projects, data collection, computer-assisted data analysis, and development of grounded theory.

Restriction: Permission of SPHL-Family Science Department

0101	Rabiatu Barrie M 1:00pm - 3:45pm	Seats (Total: 15) Location: TBA

FMSC789 **Non-Thesis Research**

(Perm req)

Non-thesis option research papers.

Contact department for information to register for this course.

FMSC799 **Master's Thesis Research**

(Perm req)

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC820 **Advanced Quantitative Methods in Family and Health Research**

(Perm req)

Recommended: Basic knowledge regarding social science research methods, study design, univariate and bivariate statistics, and family theory.

This seminar is designed to help students understand, evaluate, and develop research conceptualization and design relevant to family science and family health. By the end of the course, students will be able to critique and develop theoretically grounded quantitative research in their respective area of study. Throughout the course, students will be exposed to a broad range of advanced methods that are core to the field of family science. The course will train students on how to conceptualize and develop rigorous empirical research studies relevant to family science and family health.

Restriction: Permission of SPHL-Family Science Department

0101	Jessica Fish Th 1:00pm - 3:45pm	Seats (Total: 15) SPH 0116B

FMSC879 **Preparing Future Faculty and Professionals Seminar**

(Perm req)

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health. Topics include: career mapping, networking, teaching/teaching portfolios, independent research, publishing, grant writing, program and policy evaluation, consulting, job search, interviewing and negotiation, mentoring, diversity, work-family balance, and ethical issues in the workplace. Periodic visits to universities and government/nonprofit employers.

Restriction: Permission of SPHL-Family Science Department

0101	Colton Kilpatrick W 1:00pm - 1:50pm	Seats (Total: 30) Location: TBA

FMSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

FMSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

FREN French Spring 2024

FREN103 **Intensive Elementary French**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not have completed FREN102; and must not be a native/fluent speaker of French. Credit only granted for: FREN102 or FREN103.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Morgan Stinson MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 18) JMZ 1224 ONLINE
0201	Morgan Stinson MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 18) JMZ 3120 ONLINE

FREN203 **Intensive Intermediate French**

Prerequisite: FREN103; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN201 or FREN203.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Morgan Stinson MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE

0201	Richard Adle MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE
0301	Inaam Ngadi MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE
0401	Morgan Stinson MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) JMZ 3120 ONLINE

FREN204 **French Grammar and Composition**

Prerequisite: FREN201 or FREN203; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Not open to native/fluent speakers of French.

Intensive study of French grammar and composition.

0101	Apolline Lagarde MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 18) JMZ 1117 ONLINE
0201	Leandra Cormier MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 18) JMZ 1215 ONLINE

FREN211 **French Reading and Conversation**

Prerequisite: FREN201 or FREN203. Restriction: Must not be a native/fluent speaker of French.

Practice in spoken French at intermediate level based on readings in a variety of genres. Written homework and exams.

Contact department for information to register for this course.

FREN241 **Women Writers of French Expression in Translation**

Works and ideas of 20th century women writers of French in Canada, Africa, the Caribbean and France. Taught in English.

Contact department for information to register for this course.

FREN250 **Introduction to Cultural and Textual Analysis**

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

Cross-listed with FREN250H. Credit granted for FREN250 or FREN250H.

0101	Cecile Accilien TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 1215
0201	Theavy Din TuTh 12:30pm - 1:45pm	Seats (Total: 18) HBK 1112

FREN250H **Introduction to Cultural and Textual Analysis**

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

For general honors students only. Cross-listed with FREN250. Credit granted for FREN250 or FREN250H.

0101	Cecile Accilien TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 1215
0201	Theavy Din TuTh 12:30pm - 1:45pm	Seats (Total: 18) HBK 1112

FREN269C **Special Topics in Study Abroad II; La Chason Francaise: Then and Now**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269F **Special Topics in Study Abroad II; French Conversation I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269G **Special Topics in Study Abroad II; French Conversation**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269L **Special Topics in Study Abroad II; LANGUAGE AND CINEMA**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269P **Special Topics in Study Abroad II; Perspectives on Contemporary France**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269Z **Special Topics in Study Abroad II; Third-Year French II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN301 **Composition and Style**

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Grammatical analysis, elements of style; range of written genres.

0201	Sarah Benharrech TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1120

FREN302 **Introduction to Translation**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Hands-on practice in translation to include a variety of formats and texts (for example, advertising, legal, technical, literary, journalistic, media...) into French and/or English. Includes an extensive overview of translation techniques, theories and approaches. Taught mainly in French.

0101	Herve Campangne MW 2:00pm - 3:15pm	Seats (Total: 18) JMZ 1122

FREN306 **Commercial French I**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Introduction to commercial French including correspondence and business terminology. Emphasis on cross-cultural concepts needed for successful interaction within business settings. Taught in French.

Taught in French.

0101	Hannah Wegmann TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 20) JMZ 1224 ONLINE

FREN311 **Advanced Oral Expression**

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Linguistic and thematic analysis of written, audio, and visual texts. Focus on aural and oral skills. Some written assignments and evaluation.

Contact department for information to register for this course.

FREN312 **France Today**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Analysis and discussion of current events and institutions using various French media resources.

Contact department for information to register for this course.

FREN351 **From Romanticism to the Age of Modernism and Beyond**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Contact department for information to register for this course.

FREN352 **From the Age of Epic and Romance to the Enlightenment**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

0101	Sarah Benharrech	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 3120

FREN352H **From the Age of Epic and Romance to the Enlightenment**

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

0101	Sarah Benharrech	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 3120

FREN369F **Special Topics in Study Abroad III; Third-Year French I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369G **Special Topics in Study Abroad III; Third-Year French II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369Y **Special Topics in Study Abroad III; Fourth-Year French I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

FREN387 **Critical Writing on France and the French-Speaking World**

Prerequisite: FREN301. Restriction: Not open to Native speakers.

Intensive writing course based on focused study of issues and concerns drawn from French and Francophone literatures, films, and cultures. Elements of style, review of grammar. Taught in French.

"Theme: Representations of War in French and Francophone Literature, Film, and Media"

0101	Marilyn Matar	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 1117

FREN399 **Directed Study in French**

(Perm req)

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Supervised work under professor of student's choice with permission of instructor. Contact department for details.

Contact department for information to register for this course.

FREN399A **Directed Study in French**

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN399B **Directed Study in French; Directed Study in Nice II**

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN414 **French for International Relations**

Prerequisite: FREN387.

Historically, French has played a key role in the development and organization of International Relations. It remains an important tool for diplomats and an official working language of major international organizations. Students will be introduced to the French vocabulary and terminology specific to diplomatic discourse and the field of International Relations. Through French-speaking media analysis and simulated work-related situations in an international context, students will learn how to pitch a project, present a country situation, give a thematic presentation, and engage in successful negotiations. Students will also acquire the skills and proficiency to understand and produce professional documents used in the International Relations field. Taught in French.

0101	Herve Campangne	Seats (Total: 20)
	MW 3:30pm - 4:45pm	JMZ 1122

FREN495H **Honors Thesis Research**

(Perm req)

Restriction: Must be admitted to the departmental honors program.

The writing of a paper under the direction of a professor in this department and an oral examination. Required to fulfill the departmental honors requirement.

Contact department for information to register for this course.

FREN499W **Special Topics in French Studies; Carnaval in the French-Speaking World**

An aspect of French studies, the specific topic to be announced each time the course is offered.

This course will analyze the history and origins of carnival as well as the ways in which it is celebrated in various regions of the French speaking world including Guadeloupe, Guyana, Haiti, Martinique, New Orleans, Nice and Quebec.

0101	Cecile Accilien	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 1117

FREN499X **Special Topics in French Studies; Directed Study in French**

(Perm req)

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN699Q **Seminar; From the Surreal to the Real:Studies in French 20th-21st Century Fiction**

Topic to be determined each semester.

This course explores the relationships between aesthetic innovations and political writing from the 1920s onwards through literary works and films by French writers and filmmakers. These works are brought into dialogue with the main artistic movements and political conflicts that shaped France during the 20th century and continue to resonate in the 21st century. Taught in French.

0101	Valerie Orlando	Seats (Total: 10)
	M 4:30pm - 7:15pm	JMZ 3106A

FREN798 **Master's Independent Study**

(Perm req)

Contact department for information to register for this course.

FREN799 **Master's Thesis Research**

Contact department for information to register for this course.

FREN889 **Doctoral Independent Study**

(Perm req)

Contact department for information to register for this course.

FREN898 **Pre-Candidacy Research**

Contact department for information to register for this course.

FREN899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

GEMS Gemstone Spring 2024

GEMS102 **Research Topic Exploration and Team Formation**

Restriction: Must be in the Gemstone program.

Under the guidance of staff and visiting speakers, students will develop research topics that they will pursue for the remainder of their participation in the Gemstone program, and form into interdisciplinary teams around these topics.

0101	David Lovell	Seats (Total: 180)
	Meets January 24, 2024 - March 24, 2024	
	Th 5:00pm - 7:00pm	EGR 1202

GEMS104 **Topics in Science, Technology and Society (STS)**

Prerequisite: GEMS100. Restriction: Must be in the Gemstone program.

An examination of how cultural, economic, political and social forces shape scientific and technological systems and, conversely, how scientific and technological systems have affected the culture, economies, organization and politics of societies. Students in the course will form small teams to carry out semester-long research on socio/technical topics related to the course theme chosen for that specific semester.

GEMS104 discussions will be various times through the week beginning January 24 and running through spring break on March 18. Beginning with week 9, March 28 (the week after spring break), GEMS104 lectures will continue to be on Tuesdays from 5-6:15pm and discussions will move to Thursdays (March 31 is the first Thursday) from 5-6:15pm.

0101	Allison Lansverk Tu 5:00pm - 6:15pm W 10:30am - 11:45am	Seats (Total: 13) ESJ 0224 ELL 0100A	Discussion
0102	Allison Lansverk Tu 5:00pm - 6:15pm W 12:00pm - 1:15pm	Seats (Total: 13) ESJ 0224 ELL 0102	Discussion
0103	Allison Lansverk Tu 5:00pm - 6:15pm W 2:00pm - 3:15pm	Seats (Total: 13) ESJ 0224 ELL 0100A	Discussion
0104	Allison Lansverk Tu 5:00pm - 6:15pm W 3:00pm - 4:15pm	Seats (Total: 13) ESJ 0224 ELL 0102	Discussion
0106	Allison Lansverk Tu 5:00pm - 6:15pm Th 9:30am - 10:45am	Seats (Total: 13) ESJ 0224 ELL 0100A	Discussion
0107	Allison Lansverk Tu 5:00pm - 6:15pm Th 11:00am - 12:15pm	Seats (Total: 13) ESJ 0224 ELL 0100A	Discussion
0108	Allison Lansverk Tu 5:00pm - 6:15pm Th 11:00am - 12:15pm	Seats (Total: 13) ESJ 0224 ELL 0102	Discussion
0109	Allison Lansverk Tu 5:00pm - 6:15pm Th 12:30pm - 1:45pm	Seats (Total: 13) ESJ 0224 ELL 0100A	Discussion
0110	Allison Lansverk Tu 5:00pm - 6:15pm Th 2:00pm - 3:15pm	Seats (Total: 13) ESJ 0224 ELL 0102	Discussion
0111	Allison Lansverk Tu 5:00pm - 6:15pm Th 2:30pm - 3:45pm	Seats (Total: 13) ESJ 0224 ELL 0100A	Discussion

0112	Allison Lansverk	Seats (Total: 13)		
	Tu 5:00pm - 6:15pm F 9:30am - 10:45am	ESJ 0224 ELL 0102	Discussion	
0114	Allison Lansverk	Seats (Total: 13)		
	Tu 5:00pm - 6:15pm F 11:00am - 12:15pm	ESJ 0224 ELL 0102	Discussion	
0115	Allison Lansverk	Seats (Total: 13)		
	Tu 5:00pm - 6:15pm F 12:00pm - 1:15pm	ESJ 0224 ELL 0100A	Discussion	

GEMS208D **Special Topics in Leadership and Team Development; Introduction to Gemstone; Returner TA**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 1)		
	Contact instructor or department for details.			

GEMS208E **Special Topics in Leadership and Team Development; Research Topic Exploration Teaching Freshmen First Time Section Leader**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 18)		
	Contact instructor or department for details.			

GEMS208F **Special Topics in Leadership and Team Development; Research Topic Exploration Teaching Freshmen: Returner Section Leader**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0201	Allison Lansverk	Seats (Total: 12)		
	Contact instructor or department for details.			

GEMS208J **Special Topics in Leadership and Team Development; Gems Camp**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 24)
	Contact instructor or department for details.	

GEMS208K **Special Topics in Leadership and Team Development; GEMS Connect**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 30)
	Contact instructor or department for details.	

GEMS208M **Special Topics in Leadership and Team Development; AMPP: The Gemstone Alumni Mentor & Partner Program**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 100)
	Contact instructor or department for details.	

GEMS208P **Special Topics in Leadership and Team Development; Gemstone Leadership Council**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Allison Lansverk	Seats (Total: 15)
	Contact instructor or department for details.	

GEMS208Q **Special Topics in Leadership and Team Development; Facilitator TA**

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0201	Allison Lansverk	Seats (Total: 1)
	Contact instructor or department for details.	

GEMS296 **Team Project Seminar I**

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS202. Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the first of six seminars during which Gemstone students carry out multidisciplinary research with the guidance of a faculty mentor. The teams develop their working relationship, start their literature search, define their research question, and set short & long term goals.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS297 **Team Project Seminar II**

Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the second of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team develops its website, prepares and presents its research proposal and begins its research project.

0101	Heng Huang M 3:00pm - 3:50pm Tu 5:00pm - 5:50pm	Seats (Total: 14) ONLINE ESJ B0322
0102	Birthe Kjellerup Shirtliff Th 4:30pm - 5:20pm Th 5:30pm - 6:20pm	Seats (Total: 14) EGR 1179 EGR 1179
0103	Giuliano Scarcelli W 6:30pm - 7:20pm Sa 5:00pm - 5:50pm	Seats (Total: 14) AJC 4104 ONLINE
0104	Erik Nesse M 4:30pm - 5:20pm F 5:00pm - 5:50pm	Seats (Total: 14) ONLINE ONLINE
0105	Andrew Schiffmacher Tu 5:00pm - 5:50pm W 6:00pm - 6:50pm	Seats (Total: 14) ONLINE ONLINE
0106	Becky Epanchin-Niell M 4:00pm - 4:50pm W 4:00pm - 4:50pm	Seats (Total: 14) SYM 0215 SYM 0215

0107	Michael Otte Th 4:00pm - 4:50pm F 4:00pm - 4:50pm	Seats (Total: 14) Location: TBA Location: TBA
0108	Philip DeShong W 4:00pm - 4:50pm Class time/details on ELMs	Seats (Total: 14) CHE 4507 ONLINE
0109	Veronica Kang F 3:00pm - 3:50pm Sa 1:00pm - 1:50pm	Seats (Total: 14) ONLINE ONLINE
0110	Lucas Butler W 5:00pm - 5:50pm Su 4:00pm - 4:50pm	Seats (Total: 14) Location: TBA ONLINE
0111	Johan Larsson Th 4:00pm - 4:50pm Tu 6:00pm - 6:50pm	Seats (Total: 14) EGR 2162 ONLINE
0112	Yanjin Zhang F 2:00pm - 2:50pm Su 8:30pm - 9:20pm	Seats (Total: 14) HBK 0108 HBK 0108
0113	Erin Tran, Youssef Kousa Tu 8:00pm - 8:50pm M 6:00pm - 6:50pm	Seats (Total: 14) JMZ 0122 JMZ 0122
0114	Instructor: TBA Contact instructor or department for details.	Seats (Total: 14)
0115	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS396 **Team Project Seminar III**

Prerequisite: GEMS297. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the third of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team presents its progress at the Gemstone Colloquia.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS397 **Team Project Seminar IV**

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the fourth of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team further develops its website. Also they will prepare and present the team project in the poster session of Undergraduate Research Day.

0101	Anil Deane Tu 6:00pm - 6:50pm Tu 5:00pm - 5:50pm	Seats (Total: 14) ATL 4364 ATL 4364
0102	Mohammad Hafezi Contact instructor or department for details. M 7:00pm - 7:50pm	Seats (Total: 14) PHY 2219
0103	Fernando Raffan Montoya Th 11:30am - 12:20pm M 7:00pm - 7:50pm	Seats (Total: 14) Location: TBA JMP 3216
0104	Sylvette La Touche-Howard W 4:00pm - 4:50pm F 3:00pm - 3:50pm	Seats (Total: 14) SPH 1242A ONLINE
0105	Sahil Shah Tu 5:00pm - 5:50pm Tu 6:00pm - 6:50pm	Seats (Total: 14) AVW 2465 Location: TBA
0106	Peter Sunderland F 3:00pm - 3:50pm W 7:30pm - 8:20pm	Seats (Total: 14) Location: TBA ONLINE
0107	Myles Poulin Tu 4:00pm - 4:50pm Tu 5:00pm - 5:50pm	Seats (Total: 14) HBK 0123 HBK 0123
0108	Mohammad Hajiaghayi Class time/details on ELMs M 6:00pm - 6:50pm	Seats (Total: 14) ONLINE IRB 5107
0109	Brantley Hall M 8:00pm - 8:50pm F 3:00pm - 3:50pm	Seats (Total: 14) ONLINE ONLINE

0110	Allan Doctor, David Lovell M 8:00am - 8:50am F 8:00am - 8:50am	Seats (Total: 14) ONLINE ONLINE
0111	Huang Chiao Huang F 4:00pm - 4:50pm W 6:00pm - 6:50pm	Seats (Total: 14) AJC 4104 ONLINE
0112	Dana Dachman-Soled W 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 14) JMZ 1123 JMZ 1123
0113	Derek Paley W 4:00pm - 4:50pm W 3:00pm - 3:50pm	Seats (Total: 14) Location: TBA Location: TBA
0114	Daniel Stein Th 5:00pm - 5:50pm Th 4:00pm - 4:50pm	Seats (Total: 14) MCB 1123 MCB 1123
0115	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS496 **Project Writing Seminar**

Prerequisite: GEMS397. Restriction: Must be in the Gemstone program.

This is the fifth of six seminars during which Gemstone students carry out research with the guidance of a faculty mentor. The team finishes the analysis of their data and writes and edits its team thesis.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS497 **Team Thesis Defense**

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program.

Gemstone teams will complete the team research project and thesis. The team will formally present the thesis to experts in the area of interest at a Team Thesis Conference before final submission.

0101	Kan Cao Tu 7:00pm - 7:50pm Th 8:00pm - 8:50pm	Seats (Total: 14) ONLINE ONLINE

0102	Tao Lowe W 1:00pm - 1:50pm Tu 7:00pm - 7:50pm	Seats (Total: 14) ESJ B0320 ESJ B0320
0103	Joseph Beaudoin M 4:00pm - 4:50pm M 3:00pm - 3:50pm	Seats (Total: 14) Location: TBA Location: TBA
0104	Bao Yang Tu 5:00pm - 5:50pm M 5:00pm - 5:50pm	Seats (Total: 14) EGR 3102 EGR 3102
0105	David Kriesberg W 5:00pm - 5:50pm M 5:00pm - 5:50pm	Seats (Total: 14) ONLINE ONLINE
0106	Soheil Feizi F 9:30am - 10:20am Th 2:30pm - 3:20pm	Seats (Total: 14) ONLINE Location: TBA
0107	Ray Sedwick Th 9:00am - 9:50am Th 10:00am - 10:50am	Seats (Total: 14) EGR 3164 ONLINE
0108	Lance Yonkos M 4:00pm - 4:50pm M 5:00pm - 5:50pm	Seats (Total: 14) TYD 2109 TYD 2109
0109	Timothy Horiuchi W 8:30am - 9:20am M 8:30am - 9:20am	Seats (Total: 14) AVW 2328 EGR 1102
0110	Po-Yen Chen M 5:30pm - 6:20pm M 6:30pm - 7:20pm	Seats (Total: 14) HBK 0108 HBK 0108
0111	Elizabeth Aparicio M 9:00am - 9:50am Th 5:30pm - 6:20pm	Seats (Total: 14) ONLINE HBK 0108

0112	Ryan Sochol M 10:00am - 10:50am Tu 7:00pm - 7:50pm	Seats (Total: 14) EGR 2162 EGR 3102
0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEOG Geographical Sciences Spring 2024

GEOG140 **Natural Disasters: Earthquakes, Floods, and Fires**

Catastrophic Environmental Events (CCE) that are becoming more common in this time of global environmental change and it is essential that today's students be equipped with the knowledge and skills to be leaders as we, as a society, understand the upheaval that these CCEs are causing. Students will examine how CEEs shape human society and ecosystem from the interdisciplinary perspective afforded by the field of Geography. Students will use the latest geographic science concepts and techniques in exploring these events. Using satellite imagery they will gain a multi-scale perspective of the ecological and societal aspects of the events.

0101	George Hurtt MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 250) ARC 0204 ONLINE

GEOG156 **How NASA Sees the Earth**

Cross-listed with: INST156. Credit only granted for: GEOG156 or INST156.

The world of Earth science data is complex and can be overwhelming with a wide range of data sources and formats, hefty downloads and the need for complicated analytical tools. To make use of enormous volumes of available data and geoinformation products, one has to know where and how to search and obtain the data, how to analyze the data, and how to extract useful information and knowledge. In this course, you will learn about the state-of-the-art Web-based tools that allow you to efficiently display and analyze a large number of datasets in a way many professionals working in the Earth science domain would. You will learn how to visualize multiple Earth science datasets produced by NASA in a variety of ways directly on the Internet, without the need to download, manage and store them. Students will be introduced to comprehensive functions to analyze the data and generate customized maps, animations, multi-variable correlations, regional subsetting, etc.

0101	Sergii Skakun TuTh 9:30am - 10:45am	Seats (Total: 50) TYD 0117

GEOG172 **Earth From Space**

Earth observations from space enable the mapping and monitoring of our changing planet. This survey course reviews current observational capabilities and examines scientific applications in quantifying global environmental change. Drivers and outcomes of key dynamics will be illustrated and discussed, including sea and continental ice loss, deforestation, ocean warming, urbanization, agricultural expansion and intensification, and vegetation response to climate change.

0101	Matthew Hansen TuTh 2:00pm - 3:15pm	Seats (Total: 100) LEF 2205	

GEOG201 **Geography of Environmental Systems**

A systematic introduction to the processes and associated forms of the atmosphere and earth's surfaces emphasizing the interaction between climatology, hydrology and geomorphology.

0101	Laura Duncanson TuTh 12:30pm - 1:45pm	Seats (Total: 240) ESJ 0224	

GEOG211 **Geography of Environmental Systems Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in GEOL120, GEOL100, or GEOG201.

A laboratory course to accompany GEOG 201. Analysis of the components of the earth's energy balance using basic instrumentation; weather map interpretation; soil analysis; the application of map and air photo interpretation techniques to landform analysis.

0101	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0201	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0301	Baobao Liu, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0401	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0501	Laura Duncanson, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0601	Shi Wee, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0701	Laura Duncanson, Shi Wee Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
0801	Laura Duncanson, Shi Wee Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab

0901	Shi Wee, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
1001	Shi Wee, Laura Duncanson Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab

GEOG212 **Career Planning for Geographical Sciences, GIS, and ENSP Majors**

(Perm req)

Restriction: Must be in one of the following programs (Geography; GEOG-GIS & Computer Cartography).

Increase student knowledge of professional development opportunities in Geographical Sciences through classroom activities and invited speakers, and to build awareness of career development tools and strategies.

0101	Keith Yearwood W 3:00pm - 4:50pm	Seats (Total: 48) LEF 1158	Lab

GEOG301 **Advanced Geographical Environmental Systems**

Prerequisite: GEOG201 and GEOG211. Credit only granted for: GEOG398B or GEOG301. Formerly: GEOG398B.

This course will provide the students with an overview of the key elements of physical geography, including biogeography (factors and processes that control the geographical distributions of plants and animals, climatology (processes associated with controlling variations in weather and climate), and geomorphology (factors and processes that control changes to the physical structure of the earth surface in relation to geological structures).

0101	Ralph Dubayah TuTh 12:30pm - 1:45pm	Seats (Total: 50) TWS 1310	

GEOG306 **Introduction to Quantitative Methods for the Geographical Environmental Sciences**

Essentials in the quantitative analysis of spatial and other data, with a particular emphasis on statistics and programming. Topics include data display, data description and summary, statistical inference and significance tests, analysis of variance, correlation, regression, and some advanced concepts, such as matrix methods, principal component analysis, and spatial statistics. Students will develop expertise in data analysis using advanced statistical software.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou MW 9:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 25) LEF 2205 LEF 1136	Lab

0102	Naijun Zhou MW 9:00am - 9:50am W 2:00pm - 3:50pm	Seats (Total: 25) LEF 2205 LEF 1136	 Lab
0103	Naijun Zhou MW 9:00am - 9:50am W 4:00pm - 5:50pm	Seats (Total: 25) LEF 2205 LEF 1136	 Lab
0104	Naijun Zhou MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 25) LEF 2205 LEF 1136	 Lab

GEOG331 **Introduction to Human Dimensions of Global Change**

Prerequisite: ANTH220, ANTH260, GEOG202, or GEOG201; or permission of BSOS-Geography department. Credit only granted for: GEOG331 or GEOG361. Formerly: GEOG361.

Introduction to global-scale interrelationship between human beings and the environment. The development of global issues including but not limited to the environment, food, energy, technology, population, and policy.

0101	Meredith Gore TuTh 11:00am - 12:15pm	Seats (Total: 50) SQH 1120

GEOG333 **The Social Geography of Metropolitan Areas in Global Perspective**

Prerequisite: GEOG201 and GEOG202; or permission of BSOS-Geography department. Credit only granted for: GEOG456 or GEOG333. Formerly: GEOG456.

A socio-spatial approach to human interaction within the urban environments: ways people perceive, define, behave in, and structure world cities and metropolitan areas. Cultural and social differences define spatial patterns of social activities which further define distinctions in distribution and interaction of people and their social institutions.

0101	Laixiang Sun TuTh 2:00pm - 3:15pm	Seats (Total: 25) LEF 1158

GEOG373 **Geographic Information Systems**

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou MW 12:00pm - 12:50pm F 9:00am - 10:50am	Seats (Total: 25) TMH 0301 LEF 1136	 Lab
0102	Naijun Zhou MW 12:00pm - 12:50pm F 1:00pm - 2:50pm *Restriction: Open to GEOG, GIS, & ENSP-Coastal, Land Use, Global majors or GIS and Remote Sensing minors only.*	Seats (Total: 25) TMH 0301 LEF 1136	 Lab
0103	Naijun Zhou MW 12:00pm - 12:50pm F 3:00pm - 4:50pm	Seats (Total: 25) TMH 0301 LEF 1136	 Lab

GEOG376 **Programming for Geospatial Analysis**

Prerequisite: GEOG276 and GEOG373; Must have completed or be concurrently enrolled in MATH120, MATH130, or MATH140; or must have completed MATH220. Recommended: GEOG306.

Covers conceptual and practical aspects of geospatial data modeling and analysis techniques using the Python programming language. The main focus is on developing a solid understanding of the programmatic conventions needed to create, manipulate, and process geospatial data types, such as point, line, & polygon vectors, networks, trajectories, and space-time extensions. In addition, students will develop a proficiency in applying these data structures to perform automated geospatial analysis, such as GIS operations, agent-based models, and spatial statistics.

Students must pay a $40.00 lab materials fee.

0101	Guimin Zhu MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 30) LEF 2166 ONLINE	

GEOG384 **Internship in Geography I**

(Perm req)

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood Contact instructor or department for details.	Seats (Total: 25)	

GEOG384H **Internship in Geography I**

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

Contact department for information to register for this course.

GEOG385 **Internship in Geography II**

(Perm req)

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)
	Contact instructor or department for details.	

GEOG385H **Internship in Geography II**

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

Contact department for information to register for this course.

GEOG398 **Special Topics in Geography**

(Perm req)

An introductory course dealing with special topics in geography.

Contact department for information to register for this course.

GEOG398E **Special Topics in Geography; Introduction to Spatial Artificial Intelligence**

An introductory course dealing with special topics in geography.

An introductory course to spatial artificial intelligence (AI), providing a big picture of spatial AI applications (e.g., Google Maps, Uber/Lyft, Earth observation, smart cities, autonomous vehicles), techniques, platforms, trends, debates, etc. The course will cover basics of AI, identify challenges faced by AI techniques in the context of spatial data and applications, and introduce spatial-aware AI methods to address them. AI topics include but are not limited to: spatial data models and knowledge representation, pattern mining, machine learning, perception, planning, etc. Students are expected to have a broad understanding of spatial A concepts, develop intuitions and insights to AI techniques, and have some hands-on experience (Python) at the end of the course.

0101	Yiqun Xie	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	LEF 2166

GEOG416 **Conceptualizing and Modeling Human-Environmental Interactions**

Prerequisite: Permission of BSOS-Geography department. Corequisite: MATH130, MATH140, or MATH120; or MATH220.

Develops skills to carry out research that integrates environmental and economic aspects of sustainability by introducing extensively used quantitative tools for analyzing human-environmental interactions in the field of ecological economics. These include, e.g., index number calculations and decomposition analysis, Environmental Kuznets Curve (EKC), environmental input-output analysis and life-cycle analysis, and multi-criteria decisions aid (MCDA). Students will need laptops to run models during class.

0101	Kuishuang Feng	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	PHY 2211

GEOG417 **Land Cover Characterization Using Multi-Spectral Remotely Sensed Data Sets**

Prerequisite: GEOG272 and GEOG306; or permission of BSOS-Geography department. Jointly offered with: GEOG617. Credit only granted for: GEOG417 or GEOG617.

Students will be introduced to the image processing steps required for characterizing land cover extent and change. Key components of land cover characterization, including image interpretation, algorithm implementation, feature space selection, thematic output definition, and scripting will be discussed and implemented.

0101	Xiaopeng Song	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	LEF 1158

GEOG422 **Changing Geographies of Sub-Saharan Africa**

Prerequisite: Permission of BSOS-Geography department. Or GEOG201; and GEOG202; and (GEOG335 or GEOG333). Recommended: GEOG130 or GEOG110. Credit only granted for: GEOG328C, GEOG422. Formerly: GEOG328C.

Students will develop an understanding of the geographic contexts of SubSaharan Africa, including an overview of the physical, bioclimatic, historical, cultural, political, demographic, health and economic geographies of Sub-Saharan Africa. Students will fill in the map of Africa by studying the spatial distribution within each of these geographic domains. In addition to an overview of geography South of the Sahara, the Congo will be taken as a more intensive case study through additional readings, lectures and discussions.

0101	Catherine Nakalembe	Seats (Total: 25)
	Tu 4:00pm - 6:30pm	ESJ B0320

GEOG430 **Climate, Energy, and Policy**

Prerequisite: Permission of BSOS-Geography department. Or GEOG201 or GEOG202; and (GEOG306 and GEOG301). Jointly offered with GEOG630. Cred it only granted for: GEOG430, GEOG630 or GEOG498E. Formerly: GEOG498E.

Students will learn about climate change and energy policy from multiple perspectives includingsocial economic, technological, scientific, and behavioural aspects and their interdependence.The course will also consider the report of the Intergovernmental Panel onClimate Change on mitigation and applied cost/benefit analysis of Climate Change. Formatwill be discussion, supplemented with lecture segments and applied workshops asneeded. This course will make occasional use the popular open source statistical computerlanguage R for practical workshops

0101	Giovanni Baiocchi	Seats (Total: 25)
	W 5:00pm - 7:30pm	LEF 2166

GEOG441 The Coastal Ocean

Prerequisite: GEOG140; or students who have taken courses with comparable content may contact the department; or permission of BSOS-Geography department. Credit only granted for: GEOG441 or GEOG498C. Formerly: GEOG498C.

Introduction to coastal oceanography, focusing on the physical, biological, and geological aspects of ocean areqs on the inner continental shelves. Wave, currents, and tidal dynamics of bays, open coast, estuaries, and deltas. Sedimentary environments of major coastal types. Ecology and biogeochemical relationships, including benthic and planktonic characteristics. Coastal evolution with sea level rise. Human impacts: eutrophication, modification of sedimentation. The coastal future: rising sea level, hypoxia, and increased storminess.

0101	Keith Yearwood	Seats (Total: 40)
	M 4:15pm - 6:45pm	ESJ 2309

GEOG470 Algorithms for Geospatial Computing

Prerequisite: GEOG276; or a minimum grade of C- in CMSC330 and CMSC351; or permission of instructor. Cross-listed with: CMSC401. Jointly offered with: GEOG770. Credit only granted for: CMSC498Q, CMSC401, CMSC788I, GEOG470, GEOG498I, GEOG770, or GEOG788I. Formerly: GEOG498I.

An introduction to fundamental geospatial objects and geometric algorithms for spatio-temporal data processing and analysis. Point data representation and analysis: spatial data models and data structures, algorithms for spatial queries, point clustering algorithms. Surface and scalar field modeling, such as terrains: raster and triangle-based models (TINs), algorithms for building and querying TINs. Algorithms for natural and urban terrain analysis: morphology computation and visibility analysis. Applications to processing and analysis of LiDAR (Light Detection And Ranging) data in the context of terrain reconstruction, urban modeling, forest management and bathymetry reconstruction for coastal data management. Road network computation and analysis: algorithms for route computation in road networks, and for road network reconstruction from GPS and satellite data.

0101	Leila De Floriani TuTh 12:30pm - 1:45pm	Seats (Total: 25) HBK 0115	

GEOG472 **Remote Sensing: Digital Processing and Analysis**

Prerequisite: GEOG272 and GEOG306; or students who have taken courses with comparable content may contact the department.

Digital image processing and analysis applied to satellite and aircraft land remote sensing data. Consideration is given to image preprocessing techniques including radiometric calibration, geometric registration as well as atmospheric correction. Analysis methods include digital image exploration, feature extraction, thematic classification, change detection, and biophysical characterization. An application-oriented course project will be completed through the self-guided computer labs.

Students must pay a $40.00 lab materials fee.

0101	Dongdong Wang TuTh 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 25) LEF 1158 ONLINE	 Lab

GEOG473 **Geographic Information Systems and Spatial Analysis**

Prerequisite: GEOG306 and GEOG373; or students who have taken courses with comparable content may contact the department. Credit only granted for: GEOG473 or GEOG482. Formerly: GEOG482.

Analytical uses of geographic information systems; data models for building geographic data bases; types of geographic data and spatial problems; practical experience using advanced software for thematic domains such as terrain analysis, land suitability modeling, demographic analysis, and transportation studies.

Students must pay a $40.00 lab materials fee.

0101	Naijun Zhou MW 10:00am - 10:50am F 11:00am - 12:50pm	Seats (Total: 24) LEF 2166 LEF 1138	 Lab
0102	Naijun Zhou MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 24) LEF 2166 LEF 1138	 Lab

GEOG498 **Topical Investigations**

(Perm req)

Independent study under individual guidance.

Contact department for information to register for this course.

GEOG606 **Quantitative Spatial Analysis**

Prerequisite: GEOG305; or permission of BSOS-Geography department. Credit only granted for: GEOG605 or GEOG606. Formerly: GEOG605.

Multivariate statistical method applications to spatial problems. Linear and non-linear correlation and regression, factor analysis, cluster analysis. Spatial statistics including: trend surfaces, sequences, point distributions. Applications orientation.

0101	Giovanni Baiocchi	Seats (Total: 25)
	M 5:00pm - 7:30pm	LEF 2166

GEOG608 **Comprehensive Portfolio Assessment Summary**

Evaluation of a PhD student's portfolio.

Contact department for information to register for this course.

GEOG617 **Land Cover Characterization Using Multi-Spectral Remotely Sensed Data Sets**

Prerequisite: Permission of BSOS-Geography department. Jointly offered with: GEOG417. Credit only granted for: GEOG417 or GEOG617.

Students will be introduced to the image processing steps required for characterizing land cover extent and change. Key components of land cover characterization, including image interpretation, algorithm implementation, feature space selection, thematic output definition, and scripting will be discussed and implemented.

0101	Xiaopeng Song	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	LEF 1158

GEOG630 **Climate, Energy, and Policy**

Prerequisite: Permission of BSOS-Geography department; or enrolled in the Geographical Sciences Graduate Program(s). Credit only granted for: GEOG430, GEOG630, or GEOG788E. Formerly: GEOG788E. Additional information: This course will make occasional use of the popular open source statistical computer language R for practical workshops.

Students will learn about climate change and energy policy from multiple perspectives including social economic, technological, scientific, and behavioural aspects and their interdependence. The course will also consider the report of the Intergovernmental Panel on Climate Change on mitigation and applied cost/benefit analysis of Climate Change.

0101	Giovanni Baiocchi	Seats (Total: 10)
	W 5:00pm - 7:30pm	LEF 2166

GEOG646 **Programming for GIS**

Additional information: This class is recommended for all MSGIS students who have no prior computer programming background as well as those who wish to have additional practice. The skills learned in this class will be useful for more advanced courses such as GEOG656 (Programming and Scripting for GIS), GEOG657 (Web Programming), and GEOG650 (Mobile GIS).

An introduction to computer programming using Python and web programming languages. It is required for students in the MSGIS program before they enroll in more advanced programming courses (GEOG656 and GEOG657). This course teaches students the fundamentals concepts of computer science. Students will learn about the components of a computer program such as data management, conditional statements, iterative statements, and file processing. Students will develop programs and web apps for the purpose of automating tasks and assisting with data analysis.

Students must pay a $40 lab fee.

PGS1	Jonathan Resop	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	W 5:30pm - 8:00pm	LEF 1158	
	Th 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence. Golden ID students are not eligible for this section.		
PLG1	Jonathan Resop	Seats (Total: 20)	
	Meets February 26, 2024 - May 17, 2024		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG653 **Spatial Analysis**

Prerequisite: GEOG579; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Methods of spatial analysis including measuring aspects of geometric features and identifying spatial patterns of geospatial objects that are represented as point, line, network, areal data, and 3-D surfaces.

Students must pay a $40 lab fee.

PGS1	Jianguo Ma	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	LEF 1158	
	Tu 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences. Golden ID students are not eligible for this section.		

PLG1	Jianguo Ma	Seats (Total: 15)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, online Golden ID students are not eligible for this section.		

GEOG661 **Fundamentals of Geospatial Intelligence**

Geospatial Intelligence (GEOINT) is the collection, analysis, visualization and dissemination of geospatial information to support decision-making. This course introduces the fundamental knowledge required to become a successful GEOINT practitioner, including the history of the GEOINT discipline, the intelligence applications of remote sensing and Geographic Information Systems (GIS) technologies, and how GEOINT products are used to support national security and humanitarian missions. Upon completion of this course you will understand the roles that technology, policy, doctrine, government, and industry play in shaping the Geospatial Intelligence discipline, and develop the technical knowledge and domain expertise to create basic GEOINT products that provide context for decision makers.

Students must pay a $40 lab fee.

PGS1	David Cook	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	ASY 3215	
	Tu 5:30pm - 8:00pm	ASY 3221	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence. Golden ID students are not eligible for this section.		
PLG1	David Cook	Seats (Total: 15)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG670 **Open Source GIS**

Credit only granted for: GEOG670 or GEOG788A. Formerly: GEOG788A. Additional information: Students do not need any experience using open source GIS, but students are expected to be comfortable using a desktop GIS such as ArcGIS.

An exploration of techniques for using Free and Open Source Software for GIS (FOSS4g) from conception to final presentation of results. Advanced concepts and techniques including enterprise GIS, spatial SQL, parallel processing, and displaying the results of GIS analysis over the Internet will also be covered.

PGS1	Xin Tao	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	LEF 1166	
	Tu 5:30pm - 8:00pm	LEF 1166	Lab
	Must be in Graduate Programs in Geospatial Information Sciences. Golden ID students are not eligible for this section.		
PLG1	Xin Tao	Seats (Total: 20)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online. Golden ID students are not eligible for this section.		

GEOG677 Web GIS

Recommended: GEOG676. Restriction: Permission of BSOS-Geography department.

This course is designed to: (1) introduce the concepts and theories that are related to an increasingly important technology b (2) introduce various technologies or techniques for creating, analyzing, and disseminating GIS data and services via the Web. Students will be required to practice almost all of the Web GIS tools including client side mapping frameworks like the ArcGIS API for JavaScript, Mapbox, Leaflet, Google Map API, OpenLayers; server side systems including ArcGIS Enterprise (Server/Portal/DataStore), GeoServer; data formats for the web WMS, WFS, Feature Services, MapServices. Students will also be exposed to the experience of working with the Cloud environment such as AWS EC2 and Azure.

Students must pay a $40 lab fee.

PGS1	Xin Tao	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	W 5:30pm - 8:00pm	LEF 1166	
	Th 5:30pm - 8:00pm	LEF 1166	Lab
	Must be in Graduate Programs in Geospatial Information Science or Geospatial Intelligence. Golden ID students are not eligible for this section.		
PLG1	Xin Tao	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, online or Geospatial Intelligence, online. Golden ID students are not eligible for this section.		

GEOG683 Hazards and Emergency Management

Timely and accurate Geospatial Intelligence (GEOINT) is essential for protecting people from hazardous events such as floods, wildfires, tsunamis, hurricanes, industrial accidents, and terrorist attacks. GEOINT plays a critical role in all four stages of emergency management: preparedness, mitigation, response, and recovery. The use of remote sensing and Geographic Information Systems (GIS) before, during, and after Hurricane Katrina and the 9/11 terror attacks are two of the case studies that are discussed during this course. You will develop a deeper understanding of the emergency management successes and failures that occurred during these historic and deadly events, and learn the technical skills to develop and disseminate GEOINT products that support decision-making at all four stages of emergency management.

Students must pay a $40 lab fee.

PGS1	Jonathon Hathaway	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	W 5:30pm - 8:00pm	LEF 1106	
	Th 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Inteliigence. Golden ID students are not eligible for this section.		
PLG1	Jonathon Hathaway	Seats (Total: 15)	
	Meets February 26, 2024 - May 17, 2024		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG685 Machine Learning and Data Mining

Prerequisite: GEOG665 or equivalent.

Introduces statistical and spatial analysis over machine learning in mining data sets (and tackling big data problems), primarily in geography and spatial sciences, but with broader appeal throughout the socio-behavioral sciences. Students will be introduced to a range of methods that can be applied to the exploration, modeling, and visualization of big quantitative data. This course explores data cleaning, statistical analysis, and data-mining for geospatial and non-geospatial data in structured and unstructured form, with an emphasis on large silos of data across diverse sources and assumptions. Topics will include open sourcing, metadata schemes, data standards and models, data-access, data-mining, clustering methods, classifiers, data reduction, machine learning, filtering schemes, real-time and streaming data, archiving and preservation, and handling uncertainty.

PGS1	Ruibo Han	Seats (Total: 25)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence. Golden ID students are not eligible for this section.		
PLG1	Ruibo Han	Seats (Total: 15)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG732 **Spatial Econometrics**

Prerequisite: Permission of BSOS-Geography department. Jointly offered with: GEOG432. Credit only granted for: GEOG432 or GEOG732.

An introduction to modern econometric techniques in general and spatial econometrics in particular, using the popular open source statistical computer language R. A focus on using statistical computing to produce analytical reports for real-world applications, research papers, and dissertations.

0101	Laixiang Sun	Seats (Total: 25)	
	M 2:00pm - 4:30pm	LEF 1158	

GEOG770 **Algorithms for Geospatial Computing**

Prerequisite: GEOG276 or permission of instructor. Jointly offered with: GEOG470. Credit only granted for: CMSC498Q, CMSC401, CMSC788I, GEOG470, GEOG498I, GEOG770, or GEOG788I. Formerly: GEOG788I.

Geometric primitives and algorithms for discrete and continuous spatial data processing. Point data representation and analysis: spatial data structures, neighbor finding and range queries, clustering algorithms. Terrain modeling: grids and TINs, algorithms and data structures for building and querying TINs, gridding and interpolation. Terrain analysis: segmentation through watershed computation, algorithms for visibility computation. Applications to LiDAR data processing and analysis for forest management, urban modeling, and coastal data mapping.

0101	Leila De Floriani	Seats (Total: 10)	
	TuTh 12:30pm - 1:45pm	HBK 0115	

GEOG788 **Selected Topics in Geography**

(Perm req)

Readings and discussion on selected topics in the field of geography.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG788A **Selected Topics in Geography; Changing Geographies of Sub-Saharan Africa**

Readings and discussion on selected topics in the field of geography.

Examines the diverse physical, bioclimatic, historical, cultural, political, demographic, health, and economic geographies of Sub-Saharan Africa. Develops advanced student understanding of regional contexts and spatial patterns. Includes an intensive case study of the Congo. Students will engage with academic literature, apply geographic research methods,and complete an independent research project on a topic related to the geography of Sub-Saharan Africa.

0101	Catherine Nakalembe	Seats (Total: 10)
	Tu 4:00pm - 6:30pm	ESJ B0302

GEOG789 **Independent Readings**

(Perm req)

Independent reading as arranged between a graduate faculty member and graduate student.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG790 **Internship in Geography**

Field experience in the student's specialty in a Federal, state, or local agency or private business. Research paper required.

Contact department for information to register for this course.

GEOG797 **Professional Project**

Restriction: Must be in Geospatial Information Sciences (Master's) program.

Data and materials can originate from an internship (internal or external) or from relevant work experience with current employer. Under direction of faculty advisor, students will prepare a project report containing explanation of the requirements for the work, technical account of the activities undertaken, including literature review, description of methods and approaches taken, a critical discussion of results, along with conclusions and recommendations developed from the project. Final project will consist of a full-fledged GIS application that is up and running and can be tested, providing potential employers with a portfolio demonstrating student's ability to manage and develop a GIS application in real world situations.

Students must pay a $40 lab fee.

PGS1	Jonathan Resop	Seats (Total: 15)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm Tu 5:30pm - 8:00pm	LEF 1171 Location: TBA	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence. Golden ID students are not eligible for this section.		
PLG1	Jonathan Resop	Seats (Total: 15)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:30pm - 8:00pm Tu 5:30pm - 8:00pm	ONLINE ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online. Golden ID students are not eligible for this section.		

GEOG798 **Selected Topics in Geography: Seminar Series; Seminar Series**

Readings and discussions on selected topics in the field of geography.

0101	Tatiana Loboda	Seats (Total: 48)
	Th 3:45pm - 5:15pm	ONLINE

GEOG799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

GEOG898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

GEOG899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

GEOL Geology Spring 2024

GEOL100 **Physical Geology**

Credit only granted for: GEOL100 or GEOL120. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 110.

A general survey of the rocks and minerals composing the earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics.

0101	Tracey Centorbi	Seats (Total: 95)
	MWF 1:00pm - 1:50pm	CCC 1100

0201	Mengqiang Zhu TuTh 2:00pm - 3:15pm	Seats (Total: 95) CCC 1100	

GEOL102 **Historical Geology**

Prerequisite: GEOL120 or GEOL100; and GEOL110. Or permission of CMNS-Geology department.

Earth's history as revealed through the principles of stratigraphy and the processes of physical geology. Emphasis on formations and geologic development of the North American continent.

0101	Thomas Holtz MWF 9:00am - 9:50am W 2:00pm - 5:00pm	Seats (Total: 24) CCC 1115 GEO 2107	 Lab

GEOL110 **Physical Geology Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in GEOL120 or GEOL100. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 100.

The basic materials and tools of physical geology stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

Students must pay a $50.00 lab materials fee.

0101	Tracey Centorbi, Sophia Zipparo M 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	 Lab
0201	Tracey Centorbi, Sophia Zipparo M 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	 Lab
0301	Tracey Centorbi, Megan Perry Tu 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	 Lab
0401	Tracey Centorbi, Karla Nunez Tu 3:30pm - 6:30pm	Seats (Total: 24) GEO 2106	 Lab
0501	Tracey Centorbi, Jacob Giles Th 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	 Lab
0601	Tracey Centorbi, Jacob Giles Th 3:30pm - 6:30pm	Seats (Total: 24) GEO 2106	 Lab
0901	Megan Perry, Tracey Centorbi W 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	 Lab

GEOL120 **Environmental Geology**

Credit only granted for: GEOL100 or GEOL120.

A review of geologic factors underlying many environmental problems and the interactions between population and physical environment: geologic hazards, land-use planning, conservation, mineral resources, waste disposal, land reclamation, and the geologic aspects of health and disease. The course is aimed at lower division students in education and liberal arts, and should be useful to any student concerned with geologic perspectives of environmental problems.

0201	Sujay Kaushal TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 20) ESJ 1224 PLS 1162	 Discussion
0202	Sujay Kaushal TuTh 3:30pm - 4:45pm W 4:00pm - 4:50pm	Seats (Total: 20) ESJ 1224 PLS 1162	 Discussion
0203	Sujay Kaushal TuTh 3:30pm - 4:45pm W 5:00pm - 5:50pm	Seats (Total: 20) ESJ 1224 PLS 1162	 Discussion
0204	Sujay Kaushal TuTh 3:30pm - 4:45pm W 3:00pm - 3:50pm	Seats (Total: 20) ESJ 1224 PLS 1164	 Discussion
0205	Sujay Kaushal TuTh 3:30pm - 4:45pm W 4:00pm - 4:50pm	Seats (Total: 20) ESJ 1224 PLS 1164	 Discussion
0206	Sujay Kaushal TuTh 3:30pm - 4:45pm W 5:00pm - 5:50pm	Seats (Total: 20) ESJ 1224 PLS 1164	 Discussion

GEOL123 **Causes and Consequences of Global Change**

Cross-listed with: AOSC123. Credit only granted for: AOSC123, GEOG123, or GEOL123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Rachel Pinker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 30) ATL 2324 PLS 1111	 Discussion

0102	Rachel Pinker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 30) ATL 2324 PLS 1111	Discussion
0103	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1162	Discussion
0106	Rachel Pinker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) ATL 2324 PLS 1164	Discussion

GEOL204 **Dinosaurs, Early Humans, Ancestors, and Evolution; The Fossil Record of Vanished Worlds of the Prehistoric Past**

What good is the fossil record? What relevance or insights might the remains of ancient living things have for our modern world? This course examines how the record of ancient life was made, and how we use diverse scientific techniques to reveal the information it contains. We will look at how the various inhabitants of our planet changed through time, and how different ecosystems such as reefs, forests, and grasslands were assembled. We will see how our own species came to be, and of our spread across the world from our ancestral home in Africa. We'll examine how the fossil record contains evidence of climate changes and extinction events far exceeding what we are currently experiencing, and how we can use these as warnings for our future. We'll address who are the owners and stakeholders in the evidence of the fossil world. Students will learn how to read and interpret the primary scientific literature, and how to present scientific information to others through various media.

0101	Thomas Holtz TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 20) TWS 0320 ATL 1106	Discussion
0102	Thomas Holtz TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 18) TWS 0320 ATL 1106	Discussion
0103	Thomas Holtz TuTh 9:30am - 10:45am M 5:00pm - 5:50pm	Seats (Total: 18) TWS 0320 ATL 1106	Discussion
0104	Thomas Holtz TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 18) TWS 0320 ATL 0201	Discussion

0105	Thomas Holtz TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 18) TWS 0320 ATL 0201	 Discussion
0106	Thomas Holtz TuTh 9:30am - 10:45am M 5:00pm - 5:50pm	Seats (Total: 18) TWS 0320 ATL 0201	 Discussion

GEOL322 **Mineralogy**

Prerequisite: GEOL120 or GEOL100; and GEOL110. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Permission of instructor is required for non-degree seeking students.

Basic mineralogy for geology majors. The principles of morphologic crystallography, crystal chemistry, and determinative mineralogy.

0101	Megan Newcombe TuTh 11:00am - 12:15pm M 1:00pm - 3:50pm	Seats (Total: 22) PLS 1111 GEO 2107	 Lab

GEOL340 **Geomorphology**

Prerequisite: GEOL120 or GEOL100. Restriction: Permission of instructor is required of non-degree seeking students.

Analysis of landforms, organized on the basis of the geologic processes that have operated during the late Cenozoic. Constructional and erosional landforms related to physical systems operating on geologic structures through time.

0101	Karen Prestegaard TuTh 9:30am - 10:45am W 10:00am - 1:00pm	Seats (Total: 24) ATL 1434 GEO 2107	 Lab

GEOL391 **Biology of Extinct Animals**

Prerequisite: BSCI160 and BSCI161; or BSCI106. Cross-listed with: BSCI392. Credit only granted for: GEOL391 or BSCI392.

A survey of extinct animals that have few, if any, direct living descendants. The principles governing the functional design of animals will be used to infer life styles for extinct, and frequently bizarre, organisms.

0101	John Merck MWF 10:00am - 10:50am	Seats (Total: 65) CCC 1205	

GEOL392 **Biology of Extinct Animals Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in BSCI392. Cross-listed with: BSCI393. Credit only granted for: GEOL392 or BSCI393.

An overview of the techniques used in paleobiological reconstructions of extinct animals.

0101	John Merck	Seats (Total: 24)	
	W 11:00am - 1:50pm	PLS 1161	Lab

GEOL393 **Geology Senior Thesis I: Proposal**

(Perm req)

Prerequisite: PHYS141 or (PHYS161 and PHYS174); and MATH141; and (CHEM131 and CHEM132) or (CHEM135 and CHEM136); and must have completed at least two upper-level geology courses and be concurrently enrolled in a third. Restriction: Junior standing or higher; and must be in Geology program.

The first semester of the two-semester Geology Senior Thesis. Emphasis is on developing a plan for original research in the geosciences and presenting that plan both in writing and in public presentations that adhere to geosciences professional standards.

0101	Philip Piccoli	Seats (Total: 10)
	Tu 4:30pm - 6:30pm Contact instructor or department for details.	PLS 1158

GEOL394 **Geology Senior Thesis II: Research**

(Perm req)

Prerequisite: GEOL393; and must have completed at least three upper level GEOL courses. Restriction: Must be in Geology program; and junior standing or higher.

The second semester of the two-semester Geology Senior Thesis. Investigation of specific original research question in geosciences. Emphasis is on completion of original research proposed in GEOL393 and presentation of results both in writing and in public presentations that adhere to geosciences professional standards.

Contact department for information to register for this course.

GEOL437 **Global Climate Change: Past and Present**

Prerequisite: MATH115 or MATH140; and (GEOL100 or GEOL120); and (CHEM131 or CHEM135); and (CHEM132 or CHEM136). Cross-listed with: AOSC437. Credit only granted for: AOSC437 or GEOL437.

Introduction to the processes by which climate varies, the paleoclimate record, and projections of climate change into the 21st century, including discussion of climate sensitivity to external radiative forcing.

0101	Michael Evans	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	ATL 0201	

GEOL443 Petrology

Prerequisite: GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. And must have completed or be concurrently enrolled in GEOL423; and (GEOL100 or GEOL120); and GEOL110. Corequisite: Permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor.

Study of igneous and metamorphic rocks: petrogenesis, distributions, chemical and mineralogical relations, macroscopic and microscopic descriptions, geologic significance.

0101	Sarah Penniston-Dorland	Seats (Total: 18)	
	TuTh 8:00am - 9:15am	PLS 1146	
	Th 2:00pm - 5:00pm	GEO 2117	Lab

GEOL445 High Temperature Geochemistry

Prerequisite: GEOL322, GEOL100, and MATH115. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Non-degree-seeking students require the permission of the instructor.

Review of chemical principles and their use in understanding processes of Earth, and solar system formation and differentiation. Topics include nucleosynthesis and cosmochemical abundances of elements, bonding and element partitioning, equilibrium thermodynamics and phase stabilities, radiogenic isotopes and geochronology, kinetics, and diffusion.

0101	Ricardo Arevalo	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	JMZ 1226	
	Tu 2:00pm - 5:00pm	ATL 1106	Lab

GEOL447 Observational Geophysics

Prerequisite: MATH140 and MATH141; and (PHYS141, PHYS161, or PHYS171).

An introduction to practical signal processing, data analysis, and inverse theory in geophysics.

0101	Vedran Lekic	Seats (Total: 20)	
	TuTh 3:30pm - 4:45pm	PLS 1129	

GEOL457 Seismology

Prerequisite: GEOL120 or GEOL100; and (MATH141, GEOL110, and MATH140). Or permission of CMNS-Geology department. Recommended: PHYS171, PHYS141, or PHYS161. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL457 or GEOL489A. Formerly: GEOL489A.

General overview of the basics of seismology, starting with wave propagation, seismic reflection and refraction. Applications to the determination of the seismic velocity and anisotropy structure of the Earth. Earthquake generation, postseismic deformation and creep events, relation to faulting and plate tectonics.

0101	Nicholas Schmerr	Seats (Total: 10)	
	TuTh 11:00am - 12:15pm	BPS 1238	

GEOL488 **Geology Colloquium; Geology Colloquium**

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Mengqiang Zhu	Seats (Total: 30)	
	F 11:00am - 12:50pm	ESJ 1202	

GEOL489X **Special Topics; Preparing for the Artemis Missions -- the Geology and Geophysics of the Moon**

Recent advances in geology.

Exploration of the Moon is undergoing a new renaissance, with the planned return of humans under the NASA Artemis missions opening a new chapter of exploration and science. This class will be a combination of lecture, paper reading and student-led presentations, with a focus on grad student and advanced undergraduate engagement on the latest topics in lunar research and exploration. Topics would cover recent results that have furthered our understanding of lunar geology, geophysics, formation models, surface composition and evolution, internal dynamics and structure, and mission science. Students would lead paper discussions and a research project using the latest lunar datasets.

0101	Nicholas Schmerr	Seats (Total: 15)	
	W 10:00am - 12:50pm	PLS 1117	

GEOL497 **Recent Advances: Geology**

Prerequisite: Must have completed at least 2 upper-level GEOL courses. Corequisite: GEOL393; and a third upper-level geology course. Restriction: Must be in Geology program; and GPA of 3.0 or better in both overall and in all courses required for the major; and senior standing; and to be taken as late as possible in the program. Credit only granted for: GEOL497 or GEOL489H. Formerly: GEOL489H.

A survey of important recent advances in geological sciences in the context of the methods and practices of scientific research.

0101	Michael Brown	Seats (Total: 10)	
	W 8:00am - 8:50am	PLS 1115	
	F 11:00am - 12:50pm	ESJ 1202	
	M 2:00pm - 4:00pm	PLS 1115	Discussion

GEOL497H **Recent Advances: Geology**

Prerequisite: Must have completed at least 2 upper-level GEOL courses. Corequisite: GEOL393; and a third upper-level geology course. Restriction: Must be in Geology program; and GPA of 3.0 or better in both overall and in all courses required for the major; and senior standing; and to be taken as late as possible in the program. Credit only granted for: GEOL497 or GEOL489H. Formerly: GEOL489H.

A survey of important recent advances in geological sciences in the context of the methods and practices of scientific research.

0101	Michael Brown	Seats (Total: 10)	
	W 8:00am - 8:50am	PLS 1115	
	F 11:00am - 12:50pm	ESJ 1202	
	M 2:00pm - 4:00pm	PLS 1115	Discussion

GEOL499 **Special Problems in Geology**

(Perm req)

Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Prerequisites: GEOL100 or GEO120, GEOL110, GEOL102; or equivalent; and permission of department. In addition, non-degree-seeking students require the permission of the instructor. Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Contact department for information to register for this course.

GEOL647 **Observational Geophysics**

Prerequisite: MATH140, MATH141, and PHYS141; and (PHYS161 or PHYS171). Credit only granted for: GEOL789O or GEOL647. Formerly: GEOL789O.

Introduces graduate students to instrument design and performance, signal processing, data analysis and inverse theory in geophysics.

0101	Vedran Lekic	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	PLS 1129

GEOL654 **Fluvial Geomorphology Seminar**

Recommended: GEOL452 and GEOL340. Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL654 or GEOL789B. Formerly: GEOL789B.

Fluvial geomorphology is the study of the movement of water and sedimentin stream channels. This includes: formation of channels, open channel hydraulics, sediment transport or bedload and suspended load, river morphology and landscape evolution. The course is designed for graduate students and advanced undergraduates.

0101	Karen Prestegaard W 4:00pm - 6:30pm	Seats (Total: 8) PLS 1172

GEOL657 **Seismic Wave Propagation**

Prerequisite: MATH140 and MATH141; and (PHYS141, PHYS161, or PHYS171); and permission of CMNS-Geology department. Recommended: GEOL100 or GEOL120; and (MATH241 and MATH246); and (PHYS260 or PHYS273). Restriction: Non-degree-seeking students require the permission of the instructor. Credit only granted for: GEOL657 or GEOL789A. Formerly: GEOL789A.

A description of the physics of seismic wave propagation and their applications to the determination of the structure of the Earth and the mechanics of earthquakes.

0101	Nicholas Schmerr TuTh 11:00am - 12:15pm	Seats (Total: 10) BPS 1238

GEOL688 **Geology Colloquium; Geology Colloquium**

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Mengqiang Zhu F 11:00am - 12:50pm	Seats (Total: 30) ESJ 1202

GEOL789C **Recent Advances in Geology; Advanced Data Analysis Workshop**

Recent advances in geology research.

0101	Michael Evans Tu 2:00pm - 5:45pm	Seats (Total: 7) PLS 1115

GEOL789R **Recent Advances in Geology; Geoscience Communication**

Recent advances in geology research.

0101	Alan Kaufman F 8:00am - 10:45am	Seats (Total: 10) PLS 1172

GEOL789V **Recent Advances in Geology; Remote Sensing in Geoscience**

Recent advances in geology research.

0101	Mong-Han Huang Th 2:00pm - 4:30pm	Seats (Total: 10) JMZ 2120

GEOL789X **Recent Advances in Geology; Preparing for the Artemis Missions -- the Geology and Geophysics of the Moon**

Recent advances in geology research.

Exploration of the Moon is undergoing a new renaissance, with the planned return of humans under the NASA Artemis missions opening a new chapter of exploration and science. This class will be a combination of lecture, paper reading and student-led presentations, with a focus on grad student and advanced undergraduate engagement on the latest topics in lunar research and exploration. Topics would cover recent results that have furthered our understanding of lunar geology, geophysics, formation models, surface composition and evolution, internal dynamics and structure, and mission science. Students would lead paper discussions and a research project using the latest lunar datasets.

0101	Nicholas Schmerr	Seats (Total: 15)
	W 10:00am - 12:50pm	PLS 1117

GEOL798 **Seminar in Geology**

(Perm req)

Discussion of special topics in current literature in all phases of geology.

Contact department for information to register for this course.

GEOL799 **Master's Thesis Research**
Contact department for information to register for this course.

GEOL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

GEOL899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

GERS German Studies Spring 2024

GERS103 **Intensive Elementary German**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERS103 or GERM103. Formerly: GERM103.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0201	Magnus Jensen	Seats (Total: 25)
	MWF 2:00pm - 2:50pm	JMZ 1117
	Class time/details on ELMs	ONLINE

GERS141 **Yiddish I**

Cross-listed with: JWST281. Credit only granted for: JWST281, GERM148Y or GERS141.

Introduction to the Yiddish language, with emphasis on speaking, reading, and writing skills. Students will also learn the history of the language, its significance to Jewish culture, its origins and basic structure.

0101	Adi Mahalel TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 3122

GERS203 **Intensive Intermediate German**

Prerequisite: GERS103; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM203 or GERS203. Formerly: GERM203.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	John Scott MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 18) JMZ 0118 ONLINE
0201	John Scott MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 18) JMZ 1117 ONLINE

GERS204 **German Grammar Review**

Prerequisite: GERS203; or Must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM204 or GERS204. Formerly: GERM204.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Regina Haag TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 3203

GERS255 **Once Upon a Time: Fairy Tales of the Brothers Grimm**

Credit only granted for: GERM255 or GERS255. Formerly: GERM255.

A critical examination of how fairy tales and folklore pervade and influence diverse facets of Western culture, ranging from issues of politics and national identity, ethics and morality, violence and fear, education and pedagogy, to gender and sexuality in the establishment and regulation of social norms. Taking the German tales collected by Jacob and Wilhelm Grimm as its focal point, the magical and often terrifying world of fairy tales within the German, European, and American cultural traditions from Romanticism to today will be explored. Taught in English.

0101	Julie Koser TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 3205

GERS301 **Conversation and Composition I: The German-Speaking World**

Prerequisite: GERS204; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM301 or GERS301. Formerly: GERM301.

Practice in contemporary spoken and written German. Systematic review of grammar, and exercises in composition. Emphasis on cultural contrasts in the German-speaking world.

0101	Regina Haag	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 3203

GERS302 **Conversation and Composition II: Current Topics in German-Speaking Society**

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM302 or GERS302. Formerly: GERM302.

Further practice in contemporary spoken and written German. Contemporary social, political, and cultural themes.

0101	Regina Haag	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 3203

GERS320 **Survey of German Studies**

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM320 or GERS320. Formerly: GERM320.

Approaches to analysis of German cultural products such as literature, film, poetry, architecture and works of art. Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 3205

GERS320H **Survey of German Studies**

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM320 or GERS320. Formerly: GERM320.

Approaches to analysis of German cultural products such as literature, film, poetry, architecture and works of art. Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 3205

GERS386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher. Credit only granted for: GERM386 or GERS386. Formerly: GERM386.

Internship and practicum.

Contact department for information to register for this course.

GERS397H **Honors Reading (Independent Study)**

Credit only granted for: GERM397 or GERS397. Formerly: GERM397.

Supervised reading to be taken normally only by students admitted into honors program.

Contact department for information to register for this course.

GERS439K **Selected Topics in German Literature; Future Tense: Speculative Visions in Contemporary German Literature and Film**

Special study of an author, school, genre, or theme. Taught in German.

Investigates how literature and film can help us speculate on the future and imagine more just worlds. We will consider how German-language writers and filmmakers respond to the precarity caused by neoliberal capitalism, climate change, biopolitics, colonialism, and racist violence by offering alternative and resistant visions that help us to think through the problems of the present. Taught in German.

0101	Hester Baer	Seats (Total: 20)
	W 4:00pm - 6:30pm	JMZ 3205

GERS458B **Literary or Media Genres; The Modern Lyric**

Literary or Media Genres studies the formal and stylistic dimensions of specific genres, emphasizing genre as a social, political, and aesthetic category. Topics include pop literature; the history of German drama; and German film genres among others.

Studies the relationship of the lyrical poem to the social, political, and ecological catastrophes of the 20th century. Students will also study poetic theory, historical poetry readings, and musical adaptations. Poets studied include Hofmannsthal, Trakl, Rilke, Lasker-Schuler, Benn,Kolmar, Brecht, Sachs, Celan, Aichinger, Bachmann, and Biermann, among others. Taught in German

0101	Josh Alvizu	Seats (Total: 20)
	M 4:00pm - 6:30pm	JMZ 3205

GERS499 **Directed Study**

(Perm req)

Student-driven, independent study of a specialized topic in coordination with a faculty advisor.

Contact department for information to register for this course.

GERS618 **College Teaching of German**

Instruction, demonstration and classroom practice under supervision of modern procedures in the presentation of elementary German courses to college age students.

Restricted to GERS graduate students or by permission of the instructor only.

0101	John Scott	Seats (Total: 1)
	F 10:00am - 10:50am	JMZ 3206

GERS689K **Special Topics - M.A. Level; Future Tense: Speculative Visions in Contemporary German Literature and Film**

M.A.-level study of a literary, linguistic or cultural topic in German studies.

Investigates how literature and film can help us speculate on the future and imagine more just worlds. We will consider how German-language writers and filmmakers respond to the precarity caused by neoliberal capitalism, climate change, biopolitics, colonialism, and racist violence by offering alternative and resistant visions that help us to think through the problems of the present. Taught in German.

0101	Hester Baer	Seats (Total: 20)
	W 4:00pm - 6:30pm	JMZ 3205

GERS689R **Special Topics - M.A. Level; The Modern Lyric**

M.A.-level study of a literary, linguistic or cultural topic in German studies.

Studies the relationship of the lyrical poem to the social, political, and ecological catastrophes of the 20th century. Students will also study poetic theory, historical poetry readings, and musical adaptations. Poets studied include Hofmannsthal, Trakl, Rilke, Lasker-Schuler, Benn,Kolmar, Brecht, Sachs, Celan, Aichinger, Bachmann, and Biermann, among others. Taught in German

0101	Josh Alvizu	Seats (Total: 20)
	M 4:00pm - 6:30pm	JMZ 3205

GREK Greek Spring 2024

GREK102 **Elementary Ancient Greek II**

Prerequisite: GREK101; or students who have taken courses with comparable content may contact the department.

Continuing development of basic grammar and reading skills; study and discussion of central aspects of Greek culture.

0101	Gregory Bucher	Seats (Total: 10)
	MWF 2:00pm - 2:50pm	ONLINE
	M 1:00pm - 1:50pm	ONLINE

GREK112 **Elementary Modern Greek II**

Prerequisite: GREK111; or permission of instructor.

It is designed for students who have already completed the first semester course (GREK111) and/or those whose level of proficiency in Greek is not advanced enough for the intermediate level. Like GREK111, an introduction is provided to the language and culture of modern Greece. Students acquire the basic tools of the language and learn to communicate in simple, everyday situations. This is the second of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 10)
	MWF 12:00pm - 12:50pm	MMH 1218

GREK212 **Intermediate Modern Greek II**

Prerequisite: GREK211; or permission of instructor.

A continuation in the development of fluency in spoken and written communication along with the exploration of syntactic and grammatical structures. Comprehension and vocabulary enrichment are further developed through selected readings from Modern Greek prose and poetry. This is the second of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 7)
	MWF 11:00am - 11:50am	MMH 1218

GREK301 **Scenes from Athenian Life**

Credit only granted for: GREK301 or GREK351. Formerly: GREK351.

Makes the transition from study of Greek grammar to reading. Focus on selected aspects of life in Athens: marriage, friendship, the courts, festival, theatre. Reading short works by three authors: Lysias, Plato, and a playwright (e.g., Menander). Readings are in ancient Greek.

0101	Gregory Bucher	Seats (Total: 5)
	MW 3:30pm - 4:45pm	JMZ 1123

GREK399A **Topics in Advanced Modern Greek Language and Culture; Advanced Modern Greek II**

Development of communicative skills in advanced Modern Greek. Topics will be drawn from the social and folk life of modern Greece.

0101	Polyvia Parara	Seats (Total: 7)
	MWF 10:00am - 10:50am	MMH 1218

GREK399C **Topics in Advanced Modern Greek Language and Culture; Greek Ideals in Modern Greek Poetry**

Development of communicative skills in advanced Modern Greek. Topics will be drawn from the social and folk life of modern Greece.

0101	Polyvia Parara	Seats (Total: 5)
	MWF 2:00pm - 2:50pm	MMH 1218

GREK472 **History and Development of the Greek Language**

Restriction: Permission of instructor.

Mastery of ancient Greek through grammar review, prose composition, and analysis of historical developments in Greek writers' modes of expression.

0101	Jorge Bravo W 5:00pm - 7:40pm	Seats (Total: 7) MMH 1218	

GREK499 **Independent Study in Greek Language and Literature**

(Perm req)

Contact department for information to register for this course.

GREK672 **History and Development of the Greek Language**

Restriction: Permission of instructor.

Mastery of ancient Greek through grammar review, prose composition, and analysis of historical developments in Greek writers' modes of expression.

0101	Jorge Bravo W 5:00pm - 7:40pm	Seats (Total: 7) MMH 1218	

GREK699 **Independent Study in Greek Literature**

(Perm req)

Contact department for information to register for this course.

GREK799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

GVPT Government and Politics Spring 2024

GVPT158A **Special Topics in Study Abroad I; The European Union**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT170 **American Government**

A comprehensive study of national government in the United States.

0101	Kristina Miler MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 0101	 Discussion
0102	Kristina Miler MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 0101	 Discussion
0103	Kristina Miler MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 0101	 Discussion

0104	Kristina Miler MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0105	Kristina Miler MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0106	Kristina Miler MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 2109	Discussion
0107	Kristina Miler MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 0111	Discussion
0108	Kristina Miler MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 0111	Discussion
0109	Kristina Miler MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 25) TYD 0130 TYD 0111	Discussion

GVPT200 **International Political Relations**

A study of the major factors underlying international relations, the causes of conflict and cooperation among international actors, the role of international institutions, the interactions of domestic and foreign policies, and major issues in security, economy and the environment.

0101	Calvert Jones MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1108	Discussion
0102	Calvert Jones MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 1108	Discussion
0103	Calvert Jones MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 JMZ 1224	Discussion

0104	Calvert Jones MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 2111	Discussion
0105	Calvert Jones MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 2111	Discussion
0106	Calvert Jones MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 TYD 2111	Discussion
0107	Calvert Jones MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 LEF 2166	Discussion
0108	Calvert Jones MW 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0130 TYD 0102	Discussion
0109	Calvert Jones MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0130 LEF 2166	Discussion

GVPT201 **Scope and Methods for Political Science Research**

Credit only granted for: GVPT100 or GVPT201. Formerly: GVPT100.

An introduction to empirical research in political science.

0101	Sarah Croco MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0117 TLF 1101	Discussion
0102	Sarah Croco MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0117 TLF 1101	Discussion
0103	Sarah Croco MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 0117 WDS 1114	Discussion

0104	Sarah Croco MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0117 DOR 0134	Discussion
	Restriction: Must be in Honors Global Communities.		
0201	Sarah Croco MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 KEY 0123	Discussion
0202	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 KEY 0103	Discussion
0203	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 KEY 0125	Discussion
0204	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 HBK 1108	Discussion
0205	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 KEY 0103	Discussion
0206	Sarah Croco MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 KEY 0123	Discussion
0207	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 DOR 0134	Discussion
	Restriction: Must be in Honors Global Communities.		
0208	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 DOR 0134	Discussion
	Restriction: Must be in Honors Global Communities.		

0209	Sarah Croco MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 DOR 0134	Discussion
	Restriction: Must be in Honors Global Communities.		

GVPT203 **The Challenge of Authoritarianism**

An introduction to the persistent challenge of authoritarianism. The course explores the nature of authoritarianism and its evolution from ancient through modern times. Students will study how authoritarian regimes vary, why citizens sometimes comply with them, and when and how citizens rebel. The course concludes with a review of contemporary authoritarianism, focusing on its resilience in the Middle East and East Asia and its potential for a resurgence in the US and Europe.

0101	Calvert Jones MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 20) ATL 2324 TYD 0111	Discussion
0102	Calvert Jones MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 TYD 1132	Discussion
0103	Calvert Jones MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ATL 2324 TYD 2106	Discussion
0105	Calvert Jones MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 20) ATL 2324 LEF 2166	Discussion
0106	Calvert Jones MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ATL 2324 JMZ 0118	Discussion

GVPT241 **The Study of Political Philosophy: Ancient and Modern**

Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

0101	Sujith Kumar TuTh 3:30pm - 4:20pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 2106	Discussion

	0102	Sujith Kumar TuTh 3:30pm - 4:20pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 LEF 1201	Discussion
	0103	Sujith Kumar TuTh 3:30pm - 4:20pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 LEF 1201	Discussion
	0104	Sujith Kumar TuTh 3:30pm - 4:20pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 2102	Discussion
	0105	Sujith Kumar TuTh 3:30pm - 4:20pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 0111	Discussion
	0106	Sujith Kumar TuTh 3:30pm - 4:20pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 LEF 1201	Discussion
	0107	Sujith Kumar TuTh 3:30pm - 4:20pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 SKN 1115	Discussion
	0108	Sujith Kumar TuTh 3:30pm - 4:20pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 TYD 0101	Discussion

GVPT258B **Introduction to Political Science Topics in Study Abroad; Enemy Within: Spies and Espionage in the Cold War**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258C **Introduction to Political Science Topics in Study Abroad; Government and Politics in China**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258D **Introduction to Political Science Topics in Study Abroad; Danish Politics and Society**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258J **Introduction to Political Science Topics in Study Abroad; Comparative Foreign Policy-Haifa**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258N **Introduction to Political Science Topics in Study Abroad; Arms Control in the Nuclear Realm**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258P **Introduction to Political Science Topics in Study Abroad; Sustainable Development: Environmental, Political and Social Issues**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258Q **Introduction to Political Science Topics in Study Abroad; Latin American Social Revolutions**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258R **Introduction to Political Science Topics in Study Abroad; Peace and Conflict Honors Seminar II: Regional Conflicts**

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT273 **Introduction to Environmental Politics**

An overview of modern environmental philosophy, politics, and policy, exploring environmental politics in the US by way of comparison with other developed and developing countries.

0101	Allison Berland MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) ESJ 1215 EDU 1107	 Discussion
0102	Allison Berland MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 1215 EDU 1107	 Discussion
0103	Allison Berland MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 1215 TYD 2102	 Discussion

GVPT282 **The Politics of Global Development**

A study of the domestic governmental institutions; processes and problems such as conflict and economic development; and the socio-economic environments that are common to lower-income countries around the world.

This is a GVPT Global Learning offering. For more information click here.

0101	Jennifer Wallace MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) TMH 0301 TYD 1102	Discussion
0102	Jennifer Wallace MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TMH 0301 TYD 0101	Discussion
0103	Jennifer Wallace MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 25) TMH 0301 JMZ 2206	Discussion
0104	Jennifer Wallace MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TMH 0301 ASY 3207	Discussion
0105	Jennifer Wallace MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) TMH 0301 ASY 3207	Discussion
0106	Jennifer Wallace MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TMH 0301 JMZ 2206	Discussion

GVPT289B **Special Topics in Government and Politics; Globalization**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289D **How to Make Better Decisions**

The problem with decisions is that we rarely, if ever, find out if our decisions were good or bad. Was choosing your major, for instance, a good decision or could you have made a better one? I don't think most of us would ever know the answer to this question. So, is it possible that we regularly make bad decisions but don't know that we do? And, if so, how can we fix something if we don't know it is broken? In fact, we do regularly make bad decisions. This has been shown in many experimental studies some of which will be covered in this class. What is more, for some types of decision problems we are hardwired to make mistakes. This means that we are bound to go wrong regardless of how much we know or how smart we are. So, what can we do to remedy this problem? Quite a bit, as it turns out.

0102	Piotr Swistak MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) MMH 1400 TYD 1114	Discussion

0103	Piotr Swistak MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) MMH 1400 TYD 1114	Discussion

GVPT289E **Special Topics in Government and Politics; Economy and Society**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289G **Special Topics in Government and Politics; Global Perspectives on Development**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289P **Special Topics in Government and Politics; Citizenship and Ethics**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289T **Special Topics in Government and Politics; Issues and Controversies in 21st Century**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289X **Special Topics in Government and Politics; Introduction to the European Union**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289Y **Special Topics in Government and Politics; Theories of Peace and Conflict**

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT306 **Global Environmental Politics**

Prerequisite: GVPT200. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; or permission of BSOS-Government & Politics department.

Focus on three processes of international environmental policy development- identifying problems, negotiating solutions, and implementing agreements- through a range of case studies, including global climate change.

Open to students in the ENSP: Environmental Politics & Policy program.

0101	Allison Berland MW 2:00pm - 3:15pm	Seats (Total: 30) ESJ 1309	

GVPT309H **Topics in International Relations; British Politics**

The study of topics in international relations.

Contact department for information to register for this course.

GVPT309I **Topics in International Relations; Socio-Economic, Political, Religious, and Ethnic Conflicts in Israel, and the Search for Common Ground**

The study of topics in international relations.

Contact department for information to register for this course.

GVPT317 **Mock Trial II: Advanced Trial Advocacy**

(Perm req)

Prerequisite: GVPT217. Credit only granted for: GVPT317 or GVPT319B. Formerly: GVPT319B.

Development of trial advocacy skills through participation in practice trials and intercollegiate mock trial competitions. Student may have an opportunity to represent the university in intercollegiate mock trial tournaments, including the National Mock Trial Championships.

0101	William Mundy	Seats (Total: 40)	
	W 6:30pm - 9:15pm	TYD 1118	

GVPT320 **Advanced Empirical Research**

Prerequisite: GVPT201. Restriction: Must be in Government & Politics or Government & Politics: International Relations program.

Allows students to build on the knowledge of statistical inference they gained from GVPT201. Topics include data collection, data cleaning, data analysis, and data visualization. By the time students complete this class, they will be able to do basic statistical modeling using OLS regression independently.

Students will be required to download statistical package R onto their own laptops and must bring their laptop to every class meeting beginning on February 7.

0101	Neil Lund, Candace Turitto	Seats (Total: 30)	
	TuTh 11:00am - 12:15pm	TYD 2111	

GVPT331 **Courts, Law and Justice**

Prerequisite: GVPT170.

An introductory course to the study of law with emphasis on how lawyers and judges think and argue. Topics include, contract law, property, family law, torts, and criminal procedure.

Cross-listed with MLAW358W. Credit only granted for GVPT331 or MLAW358W.

0101	Michael Spivey	Seats (Total: 25)	
	MW 1:00pm - 1:50pm	ASY 2203	
	F 9:00am - 9:50am	LEF 1220	Discussion

0102	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 LEF 1220	Discussion
0103	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 LEF 1220	Discussion
0104	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 TYD 1102	Discussion
0105	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 TYD 1102	Discussion
0106	Michael Spivey MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ASY 2203 TYD 1132	Discussion

GVPT349 **Topics in Political Philosophy**

The study of topics in political philosophy.

Contact department for information to register for this course.

GVPT349Z **Topics in Political Philosophy; Political Thought**

The study of topics in political philosophy.

Contact department for information to register for this course.

GVPT355 **Capstone in International Conflict Management**

(Perm req)

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international conflict management and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

0101	Paul Hughes, Michael Hess, James Covey W 3:30pm - 6:15pm	Seats (Total: 40) ESJ 1309	

GVPT356 **Capstone in International Development**

(Perm req)

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international development and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Stacy Kosko	Seats (Total: 36)
	M 2:00pm - 4:45pm	AJC 2134

GVPT358A **Study Abroad Seminar in Political Science; Migration and Multiculturalism in Europe**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358F **Study Abroad Seminar in Political Science; Government and Politics in France**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358G **Study Abroad Seminar in Political Science; History and Politics of Modern Italy: The Twentieth Century**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358P **Study Abroad Seminar in Political Science; Political Rhetoric: Blogs, Speeches, and Spin**

The study of topics in political science.

Contact department for information to register for this course.

GVPT358R **Study Abroad Seminar in Political Science; Religion and Politics in Europe**

The study of topics in political science.

Contact department for information to register for this course.

GVPT359 **Topics in Comparative Politics**

The study of topics in comparative politics.

Contact department for information to register for this course.

GVPT359Z **Topics in Comparative Politics; Parliament, Politics and Policy Making**

The study of topics in comparative politics.

Contact department for information to register for this course.

GVPT368E **Special Topics in Government and Politics; Israeli Foreign and Security Policy**

The study of topics in government and politics.

Cross-listed with ISRL329P. Credit only granted for ISRL329P or GVPT368E.

0101	Ilai Saltzman	Seats (Total: 35)	
	MW 2:00pm - 3:15pm	SQH 1101	

GVPT368J **Special Topics in Government and Politics; The Arabs in Israel: Palestinian Arab Citizens of Israel**

The study of topics in government and politics.

Cross-listed with ISRL349N. Credit only granted for ISRL349N or GVPT368J. This course examines the political, social, and economic experience of the Arab minority in Israel from the establishment of the State up until recent years. It addresses the relationship between the State and the Arab community and the distinctive internal dynamics of Arab society as well as the relationship between the Arab minority in Israel and the Palestinians, and the Arab world.

0101	Morad Elsana	Seats (Total: 35)	
	Tu 6:00pm - 8:30pm	KEY 0126	

GVPT368K **Special Topics in Government and Politics; Environment and Sustainable Development in Israel**

The study of topics in government and politics.

Cross-listed with ISRL349Y. Credit only granted for ISRL349Y or GVPT368K. Relationships between the environment and different communities that share it, specifically in and around Israel, given the negative effects of climate change and environmental degradation throughout the Middle East. We will examine the ecological and environmental challenges Israel has faced over the years, the many innovative ways in which it has worked to overcome these challenges, and the tasks that still lie ahead. Finally, we will look at the nexus between sustainable development and sustainable peace within and between diverse communities.

0101	Adina Friedman	Seats (Total: 35)	
	Th 5:00pm - 7:30pm	ONLINE	

GVPT368O **Special Topics in Government and Politics; Design and Democracy**

The study of topics in government and politics.

Cross-listed with ARTT489J and PLCY488A. Credit only granted for ARTT489J, GVPT368O, or PLCY488A.

0101	Hannah Smotrich	Seats (Total: 15)	
	MW 3:00pm - 5:30pm	ASY 2322	Lab

GVPT376 **Applied Field Research in Government and Politics**

(Perm req)

Prerequisite: GVPT170. Corequisite: GVPT377.

Students in this course participate as interns in an agency of government or in some other appropriate political organization. Assignments are arranged to provide students with insights into both theoretical and practical aspects of politics. Under the tutelage of the host agency and an academic advisor, students conduct a major research project of mutual interest to the student and his or her host agency in the field of government and politics.

Contact department for information to register for this course.

GVPT377 **Experiential Learning: Government and Politics Internship Program**

(Perm req)

Prerequisite: GVPT170. Credit only granted for: GVPT377 or GVPT388W. Formerly: GVPT388W.

The application of major concepts of political science to the realities of the political process. The course connects internship experiences with larger themes of political science. Students must be admitted to the GVPT Internship Program.

Students interested in registering for this course must have an internship secured and must apply to the GVPT Internship Program. Required in-person class meetings will take place 6:30pm-9:15pm on the following Wednesdays: February 21, March 27, and April 24.

Click here for more course information.

0101	Victoria Worley Class time/details on ELMs W 6:30pm - 9:15pm	Seats (Total: 40) ONLINE TYD 0111

GVPT386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-Government & Politics department; and junior standing or higher.

Contact department for information to register for this course.

GVPT388 **Topical Investigations**

(Perm req)

Independent research and writing on selected topics in government and politics.

Permission of Director of Undergraduate Studies required.

Contact department for information to register for this course.

GVPT388G **Topical Investigations; Global Environmental Justice**

(Perm req)

Independent research and writing on selected topics in government and politics.

This is a GVPT Global Learning offering. The course will meet on campus during the spring semester and complete a trip to Montreal over the 2024 Spring Break. Students must complete both GVPT388G and the Spring Break study abroad course GVPT388N. This course will examine the relationship between environmental problems and social justice through a global lens; we will explore different approaches to environmental justice, and examine why and how some groups are impacted unequally by environmental hazards, and how we might pursuea more just outcome.

Contact department for information to register for this course.

GVPT388M **Topical Investigations; Mock Trial Independent Study**

(Perm req)

Independent research and writing on selected topics in government and politics.

Prerequisite: Permission of department.

0101	William Mundy	Seats (Total: 15)
	W 6:30pm - 9:15pm	TYD 1114

GVPT389 **Experiential Learning II**

(Perm req)

Experiential credit for working in government & politics related internships, research, and teaching opportunities.

Junior standing.

Contact department for information to register for this course.

GVPT390 **Game Theory**

Restriction: Must not have completed ECON414. Credit only granted for: GVPT399A, GVPT390, CMSC474 or ECON414. Formerly: GVPT399A.

Introduction to game theory with applications to political science, economics and sociology. Topics include preference theory, expected utility theory, Nash equilibria, subgame perfection, repeated games, folk theorems, and evolutionary stability.

0101	Piotr Swistak	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TYD 2102

GVPT396 **Introduction to Honors Research**

(Perm req)

Restriction: Must be in Government & Politics Honors Program; and must have permission of the Government & Politics Honors Program.

A required course for all honors students designed to emphasize library research, methodology, and writing skills in political science and political philosophy. A written proposal, bibliography and research design for an honors paper required of all students as a final project.

Contact department for information to register for this course.

GVPT397 **Honors Research**

(Perm req)

Prerequisite: GVPT396. Restriction: Must be in Government & Politics Honors Program.

Individual reading and research. Preparation of an original paper.

Contact department for information to register for this course.

GVPT399 **Seminar in Government and Politics**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399C **Seminar in Government and Politics; Cultures Without State: The Case of Catalonia**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399D **Seminar in Government and Politics; Society and Politics in Contemporary Spain**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399E **Seminar in Government and Politics; The European Union: Politics and Policy**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399I **Seminar in Government and Politics; Globilization**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399J **Seminar in Government and Politics; Modern British Politics**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399K **Seminar in Government and Politics; Structure and Process in International Relations**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399L **Seminar in Government and Politics; British Politics**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399M **Seminar in Government and Politics; Policy Analysis**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399O **Seminar in Government and Politics; Parliament Politics**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399P **Seminar in Government and Politics; Foreign Policy Analysis**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Q **Seminar in Government and Politics; Security and Defense Policy in the European Union**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399R **Seminar in Government and Politics; Modern American Government**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399T **Seminar in Government and Politics; Social Policy, Social Exclusion**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399V **Seminar in Government and Politics; Political Economy of China and Japan**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399W **Seminar in Government and Politics; International Economic Organizations**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399X **Seminar in Government and Politics; Politics of the Balkan**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Y **Seminar in Government and Politics; Political Economy of Sustainable Development**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399Z **Seminar in Government and Politics; International Security**

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT402 **International Law**

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

A study of the basic character, general principles and specific rules of international law, with emphasis on recent and contemporary trends in the field and its relation to other aspects of international affairs.

Contact department for information to register for this course.

GVPT406 **International Organizations**

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

A basic introduction to the full range of international organizations that have come into being over the past century and one-half, including those that aspire to be universal or global, those with a geopolitical or regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.

0101	Todd Allee	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 0101

GVPT409G **Seminar in International Relations and World Politics; Corporations and the Global Political Economy**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program. The course will examine corporations as political actors in global politics, analyzing power, norms and governance in different issue areas.

0101	Virginia Haufler	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 2111

GVPT409H **Seminar in International Relations and World Politics; International Relations of the Middle East**

(Perm req)

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics Honors program. This seminar will evaluate major issues of the international relations of the Middle East and the American role and responses to these issues. The seminar will focus on several post-Cold War cases in American foreign policy, including the 1991 and 2003 Gulf wars, policy toward Iran, American mediation in the Arab-Israeli conflict, responses to the Arab Uprisings, re-emerging competition with Russia, and broader issues such as regional reform and nuclear non-proliferation.

0101	Shibley Telhami	Seats (Total: 20)
	M 2:00pm - 4:45pm	CHI 2113

GVPT409I **Seminar in International Relations and World Politics; International Security and International Law**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program.

0101	Paul Huth	Seats (Total: 30)
	W 3:00pm - 5:45pm	TYD 1118

GVPT409J **Seminar in International Relations and World Politics; Youth and Conflict**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program. Youth engulfed by conflict and post-conflict situations face circumstances that substantially alter their lives and prospects. This course offers students the opportunity to critically analyze the discipline of contemporary armed conflicts and the youth. Particularly, it explores the various definitions of youth as a biological, cultural, and political category. We will discuss youth as victims of conflict, as perpetrators of violence, and as peace builders. The course aims to challenge assumptions about youth in conflict and the subsequent political effects especially in the African context.

0101	Fiifi Edu-Afful	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 1101

GVPT409N **Seminar in International Relations and World Politics; Civil Wars**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisites: GVPT200 Restriction: Must be in Government & Politics program. Why do civil wars last so much longer than interstate wars? What explains violence against civilians in civil wars? Do United Nations Peacekeeping work? This course focuses on different topics related to civil wars, with a special emphasis that civil war must be examined with a multidisciplinary lens. The course will begin with a rigorous definition of civil wars. Next, we will quickly move on to survey bargaining, economic,and sociological approaches to address the occurrence, duration, intensity, and termination of civil wars. Throughout the course, we will discuss different specific phenomenons often observed in the general context of civil wars. We will also discuss various historical cases along with each topic. These topics include ethnicity, counterinsurgency, warfare conduct, rebel inter-group dynamics, civilian victimization, foreign intervention, negotiated settlements, etc.

0101	Mingyang Su	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1102

GVPT409T **Seminar in International Relations and World Politics; Political Economy of the Middle East**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409U **Seminar in International Relations and World Politics; Politics of Europe and the European Union**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200 or GVPT280. Restriction: Must be in Government & Politics program. This course will serve as an introduction to the politics of contemporary Europe, from the historical conditions that led to the formation of the European Union, through contemporary conflicts over immigration, integration, and emerging challenges to liberal democracy. We will draw on insights from both comparative politics and international relations to analyze the complex power dynamics that shapethe politics of the region.

0101	Neil Lund	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 0101

GVPT409V **Seminar in International Relations and World Politics; Game Theory and International Security**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409W **Seminar in International Relations and World Politics; Southeast Asia in Contemporary Global Politics**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Southeast Asia, home to three major religious cultures and various regime types, is one of the most politically and socially diverse regions of the world. While the region is unique for its diversity, its states face challenges that are common in other parts of the world including globalization; adjusting to the new geopolitical landscape of rising global powers; and external pressure to improve the standards of human rights, the environment and democracy. Given this dynamic political context, this course is designed to give students a greater understanding of the problems and prospects of the region, as well as the ability to assess its efforts to adapt to the changing regional and international environment.

0101	Jennifer Wallace	Seats (Total: 75)
	MW 2:00pm - 3:15pm	TYD 0117

GVPT409X **Seminar in International Relations and World Politics; Arms Control in the Nuclear Realm**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409Y **Seminar in International Relations and World Politics; Arab-Israeli Relations**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409Z **Seminar in International Relations and World Politics; International Relations: Theory and Institutions**

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program or Government Politics: International Relations program.

Contact department for information to register for this course.

GVPT423 **Elections and Electoral Behavior**

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

An examination of various topics relating to elections; the focus includes the legal structure under which elections are conducted, the selection and nomination process, the conduct of election campaigns, and patterns of political participation and voting choice in different types of elections.

0101	James Gimpel	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 1118

GVPT429B **Problems in Political Behavior; Data Analysis for Political Behavior**

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT201. Restriction: Must be in Government & Politics program. This course provides an opportunity to think about and to practice the most common statistical methods for doing research on political behavior. A major goal of this course is to provide practice with quantitative methods you have learned in earlier classes and offer additional exposure to statistical software used commonly by employers. Most importantly, the course will provide students with more exposure to what quantitative research on political behavior looks like, how to construct theories, how to assemble evidence, and how to relate theories and evidence through empirical testing.

0101	James Gimpel	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PLS 1129

GVPT429K **Problems in Political Behavior; Researching Contentious Politics**

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT201 Restrictions: Must be in Government & Politics program. This course will critically assess empirical research on the causes and consequences of contentious political behaviors such strikes, riots, peaceful protests, and insurrections with a particular focus on efforts to address these questions using quantitative methods. Topics we will address throughout the course include: why some protest campaigns succeed while others fail, the role of social media in coordinating demonstrations, and the impact of riots on public opinion and government policy.

0101	Neil Lund	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 1107

GVPT429T **Problems in Political Behavior; Social media politics**

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Prerequisite: GVPT201. Restriction: Must be in Government & Politics program. This seminar presents students with an integrated view of media politics, combining political psychology, computational social science, and network analysis. The goal is to provide students with the technical know-how to work with social media data and the knowledge to interpret relevant information. In this seminar, students will learn to process social media data, program survey experiments, and identify political narratives in a multiplatform environment. The seminar will introduce students to the computational techniques required for big social media data analyses.

0101	Ernesto Calvo	Seats (Total: 25)
	MW 2:00pm - 3:15pm	SQH 2120

GVPT432 **Civil Rights and the Constitution**

Prerequisite: GVPT170 and GVPT331. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations).

A study of civil rights in the American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

Credit only graned for GVPT432 or MLAW358Y.

0101	Michael Spivey	Seats (Total: 42)
	MW 3:00pm - 4:15pm	ASY 3207

GVPT439I **Seminar in Public Law; American Economic Inequality and the Law**

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics or Government & Politics: International Relations program. The United States has one of the highest levels of economic inequality in the developed world. While some level of economic inequality is inherent and even desirable in a capitalistic economy, many scholars believe that the level of inequality that prevails in the United States erodes generalized levels of trust, poisons interpersonal relationships, and ultimately makes it far more difficult to govern a democratic society. This course examines the roots of American economic inequality, with a tight focus on how laws adopted through democratic processes have resulted in a huge transfer of wealth from the hands of the many to the hands of the few.

0101	Martin Kobren	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 2109

GVPT439J **Seminar in Public Law; We the People: Building a New Constitution for the U.S.**

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT431. Restriction: Must be in Government & Politics program. The U.S. Constitution, written in 1787 and ratified in 1789, was a revolutionary achievement in political science. It was based on an Enlightenment Era theory of human behavior and the best political theory available at the time. But, because it was also a human creation it has a large number of flaws derived from the political and economic realities of the day. In this course, we reconsider the U.S. Constitution and the political structures it created, with a view to proposing either constitutional amendments or even replacing it entirely with something better. Students will learn about the current constitutional structure, consider changes and updates to it, and attempt to negotiate and draft new constituional language for the government we need today.

0101	Martin Kobren	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	HBK 0109

GVPT439L **Seminar in Public Law; Introduction to Moot Court**

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisites: GVPT431, GVPT432, and GVPT439B. Not open to students who have completed GVPT439M Moot Court. This is an introductory class in appellate advocacy. It will teach you the skills and methods necessary to compete in regional and national Moot Court competitions. In moot courting, students assume the role of advocates in a hypothetical Supreme Court case. You will learn how to identify relevant case law, how to structure an oral argument and how to develop a written brief in the hypothetical case. The semester will conclude with each student arguing the case for his or her "client" before a panel of practicing lawyers and jurists. No prior experience in oral advocacy is necessary. Students must commit to a virtual moot court practice which will take place in the evening. Contact the instructor for more information.

0101	Kelsey Barnes	Seats (Total: 20)
	MW 4:30pm - 5:45pm Class time/details on ELMs	JMZ 0205 ONLINE

GVPT442 **History of Political Theory--Medieval to Recent**

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program.

A survey of the principal theories set forth in the works of writers from Machiavelli to Nietzsche.

Contact department for information to register for this course.

GVPT449E **Seminar in Political Philosophy; Social Philosophy and Political Economy**

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Also offered as PHPE401. Credit only granted for PHPE401 or GVPT449E. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

0101	Antong Liu	Seats (Total: 6)
	TuTh 9:30am - 10:45am	LEF 2166

GVPT449G **Seminar in Political Philosophy; Global Justice**

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. The course begins by laying the foundation for the debate over the scope and limits of global justice, and then examines some topics that arise when thinking globally about justice, such as poverty, the environment and waging war. The course ends by considering the possibility of creating a cosmopolitan framework within which to adjudicate between competing interests in the globalized world.

0101	Sujith Kumar	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 0101

GVPT449X **Seminar in Political Philosophy; Ethics & Global Policy**

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT449Y **Seminar in Political Philosophy; Environmental Political Theory**

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT454 **Seminar in the International Relations of China**

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

Explores the foreign relations behavior of the People's Republic of China, with focus on the contemporary era.

0101	Margaret Pearson	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ESJ 2309

GVPT456 **The Politics of Terrorism**

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Credit only granted for: GVPT456 or GVPT459T. Formerly: GVPT459T.

Examination of the definition, causes and organization of terrorist activity, along with key domestic and international counter- and anti-terrorism responses. Special emphasis on challanges and opportunities to the scientific study of terrorism.

Contact department for information to register for this course.

GVPT457 **American Foreign Relations**

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

The principles and machinery of the conduct of American foreign relations and an analysis of the major foreign policies of the United States.

This is a GVPT Global Learning offering. For more information click here.

0101	Shannon Carcelli	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1132

GVPT458G **Special Topics in Study Abroad IV; Czech Society Transformation**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458O **Special Topics in Study Abroad IV**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT459C **Seminar in Comparative Politics; Race and Ethnic Politics in Comparative Perspective**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program. This course examines the multiple ways in which race and ethnicity become meaningful categories shaping political behavior. We will examine how race and ethnicity are socially constructed, why people accept (and sometimes reject) the categories imposed on them, and how categories and identities become drivers of political behavior. The course takes a comparative perspective on identity politics, looking at cases from multiple regions around the world.

0101	Marcus Johnson	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 1118

GVPT459H **Seminar in Comparative Politics; East European Politics and Societies: Communism, Liberalism,Populism**

(Perm req)

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics Honors Program. Thirty-five years ago protest movements from below led to the world-shattering events known as the revolutions of 1989. What were their causes and consequences? What were the communist regimes and why did they fail? The course will highlight the (re)birth and consolidation of liberal democracies, NATO and EU extensions, the ongoing ideological confrontations, and the rise of populist and nationalist parties and movements.

0101	Vladimir Tismaneanu	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TYD 1108

GVPT459J **Seminar in Comparative Politics; Regime Types: Democracies and Nondemocracies**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisites: GVPT200 and GVPT280 Restriction: Must be in Government & Politics program. Not open to students who have completed:GVPT359J. This course will address four main themes: 1) regime change from a democracy to an autocracy; 2) regime change from an autocracy to a democracy; 3) democracies becoming less democratic; and 4) autocracies becoming less autocratic.

0101	Youngjoon Lee	Seats (Total: 30)
	MW 3:30pm - 4:45pm	JMZ 0125

GVPT459K **Seminar in Comparative Politics; Russian Politics: From Lenin to Putin**

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Goverment & Politics program.

0101	Vladimir Tismaneanu	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 1101

GVPT479B **Seminar in American Politics; Black Politics**

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170. Restriction: Must be in Government & Politics program. The purpose of this course is to assist students in gaining an understanding of the relationship of people of African descent in the United States to the political system and other structures of power. We critically engage several themes/topics including Black political philosophies and ideologies, electoral politics, Black and mainstream political institutions, political behavior and psychology, gender politics, and public policy. We will also analyze and discuss the informal political spaces that serve as sites for Black politics including social media, entertainment, and pop culture.

0101	Reginald Pulley, Chryl Laird	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 1132

GVPT479K **Seminar in American Politics; Presidential Elections**

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

This class will explore American Presidential elections. The nomination process and general election for the most important political office in the world are very distinctive and even unique in some ways. While noting the current campaign unfolding around us, we are interested in the process more broadly, NOT just the 2024 election. We will examine the institutions that have affected candidates' and voters' behavior and how they have developed historically. We also look at American Presidential elections in global perspective, noting how the U.S. system differs from arrangements in other countries, and consider potential reforms.

0101	David Karol	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 2109

GVPT481 **Government and Administration of Russia and the States of the Former Soviet Union**

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program.

A comparative study of the governmental systems and political processes of the states of the former Soviet Union.

Contact department for information to register for this course.

GVPT482 **Government and Politics of Latin America**

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A comparative study of the governmental systems and political processes of the Latin American countries.

0101	Marcus Johnson	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 1118

GVPT485 **Government and Politics of the Middle East**

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program. Credit only granted for: GVPT485 or GVPT459E. Formerly: GVPT459E.

A comparative study of the governmental systems and political processes of Middle Eastern countries, with special emphasis on the problems of nation-building in emergent countries.

Contact department for information to register for this course.

GVPT605 **Introduction to Conflict and Cooperation in the World Economy**

(Perm req)

Prerequisite: GVPT604. Restriction: Must be in the International Relations Master's program; or permission of Government and Politics department.

This seminar examines major theoretical approaches and empirical studies of international political economy, contemporary dynamics of globalization, the role of domestic politics in the formation of foreign economic policies of states, the dynamics of international trade and investment disputes, and role of international institutions in multi-lateral governance of the world economy. The focus is on developing an understanding of central debates in the literature and primary empirical findings from quantitative and cross-national analyses that are of policy relevance.

0101	Jennifer Wallace Th 9:30am - 12:15pm	Seats (Total: 31) TYD 1114
PCR1	Jennifer Wallace Th 9:30am - 12:15pm *Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.*	Seats (Total: 10) TYD 1114

GVPT606 **Introduction to International Institutions and International Law**

(Perm req)

Prerequisite: GVPT604. Restriction: Must be in the International Relations Master's program; or permission of Government and Politics department.

This seminar examines major theoretical approaches and empirical studies of international law and institutions relating to international political economy and international security. Topics to be covered include the sources of international law and the development of core legal principles in the post-WWII ear, the role of international economic institutions such as WTO, IMF, and World Bank in the global economy, and the influence of international institutions such as the UN Security Council, World Court, and International Criminal Court in addressing international security issues. Larger questions about the effectiveness of the WTO, Laws of War, and International Human Rights Law will be considered. The focus is on developing an understanding of central debates in the literature and primary empirical findings from quantitative and cross-national analyses that are of policy relevance.

0101	Deniz Cil Tu 3:30pm - 6:15pm	Seats (Total: 31) TYD 2102

PCR1	Deniz Cil	Seats (Total: 10)
	Tu 3:30pm - 6:15pm	TYD 2102
	Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.	

GVPT624 **National Security and International Relations**

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

Introduction to key areas of research in national security and international relations. Students will learn the major approaches to empirical research on national and international security and work with datasets focused on terrorist attacks and civil conflict.

PCA1	Neil Lund	Seats (Total: 10)
	Th 3:30pm - 6:00pm	WDS 1131
	Must be in the Applied Political Analysis (MS) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

GVPT685 **Voting, Campaigns, and Elections**

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

Introduction to the theoretical and empirical research on political participation, campaigns, and elections. By gaining an understanding of the literature and working with a variety of data sets, including surveys and voter history files, students will be equipped to carry out their own research on these topics.

PCA1	Candace Turitto, Richard Engstrom	Seats (Total: 10)
	W 5:00pm - 7:45pm	WDS 1127
	Must be in the Applied Political Analysis (MS) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

GVPT715 **Public Policy: Process and Evaluation**

Restriction: Must be in Applied Political Analytics (APAN); or permission of department.

The public policy approach at both state and federal levels; policy considerations and restrictions; methods of testing and evaluation; collecting and cleaning policy data.

PCA1	Richard Engstrom Th 6:00pm - 8:45pm	Seats (Total: 10) ONLINE
	Must be in the Applied Political Analysis (MS) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

GVPT718Q **Selected Topics in Political Science; Qualitative and Multi-Method Research**

Selected topics in the field of political science.

0101	Margaret Pearson, Jennifer Hadden, Kathleen Cunningham M 1:00pm - 3:45pm	Seats (Total: 12) TYD 1111

GVPT722 **Advanced Quantitative Methods For Political Science**

Prerequisite: GVPT622; or permission of instructor.

Introduction to multivariate analysis. Elementary matrix algebra, multiple linear and curvilinear correlation and regression, analysis of variance, canonical correlation and regression, discriminant analysis, and several types of factor analysis.

0101	Michael Hanmer Th 9:30am - 12:15pm	Seats (Total: 12) TYD 1111

GVPT729Q **Special Topics in Quantitative Political Analysis; Quantitative Analyses of International Political Economy and International Security**

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

PCR1	Jacob Aronson Tu 11:00am - 1:45pm	Seats (Total: 40) SKN 1115
	Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.	

GVPT771 **Seminar in American Political Behavior**

This is the core seminar in American political behavior. The course will deal with prominent theoretical and empirical issues in the areas of voting, public opinion, political participation and other aspects of political behavior in the American context.

0101	Chryl Laird, Antoine Banks, Michael Hanmer Tu 10:00am - 12:45pm	Seats (Total: 12) TYD 1111

GVPT799 **Master's Thesis Research**

Contact department for information to register for this course.

GVPT803 **Seminar in International Political Organization**

Restriction: Must be in Government and Politics PhD program.

An overview and critical analysis of contemporary theory on international organizations and global governance.

0101	Virginia Haufler	Seats (Total: 12)
	W 2:00pm - 4:45pm	TYD 1136

GVPT808B **Selected Topics in Functional Problems in International Relations; Conflict and World Politics**

An examination of the major substantive issues in contemporary international relations.

0101	David Cunningham	Seats (Total: 12)
	Tu 12:30pm - 3:15pm	TYD 1136

GVPT808C **Selected Topics in Functional Problems in International Relations; Prospectus Seminar**

An examination of the major substantive issues in contemporary international relations.

0101	Kathleen Cunningham	Seats (Total: 12)
	Tu 9:30am - 12:15pm	TYD 1136

GVPT808I **Selected Topics in Functional Problems in International Relations; The Impact of International Economics and Security on Developing Countries**

An examination of the major substantive issues in contemporary international relations.

PCR1	Hyunki Kim	Seats (Total: 40)
	M 2:00pm - 4:45pm	TYD 2111
	1ust be in the International Relations (MA) program. Golden ID students are not eligible for this section.	

GVPT849 **Readings in Government and Politics**

(Perm req)

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT873 **Seminar in Legislatures and Legislation**

Reports on topics assigned for individual study and reading about the composition and organization of legislatures and about the legislative process.

0101	Kristina Miler	Seats (Total: 12)
	W 1:00pm - 3:45pm	TYD 1111

GVPT879R **Topics on International Security; Research Design and Analysis in International Relations**

A detailed and advanced analysis of particular regional problems on defense policy and arms control.

PCR1	Deniz Cil, Hyunki Kim W 2:00pm - 4:45pm	Seats (Total: 40) TYD 2111
	Must be in the International Relations (MA) program. Golden ID students are not eligible for this section.	

GVPT888P **Selected Topics in Comparative Governmental Institutions; Political Institutions**

An examination of special topics in comparative politics.

0101	Fiona Shen-Bayh Th 2:00pm - 4:45pm	Seats (Total: 12) TYD 1111

GVPT898 **Pre-Candidacy Research**

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HACS ACES-Cybersecurity Spring 2024

HACS101 **Applied Cybersecurity Foundations**

Prerequisite: Minimum grade of C- in HACS100. Restriction: Must be a second-semester student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Prepares students for team research that will be conducted in HACS 200. Students gain an understanding across the breadth of cybersecurity including system monitoring, networking basics and penetration testing. An applied approach to statistics is also included to prepare students to assess the data collected for their research projects. The course is conducted with a hands-on approach applying virtual environments to practice the concepts learned in the technical lectures each week.

0101	Michel Cukier MW 9:00am - 9:50am	Seats (Total: 35) PFR 1111
0201	Michel Cukier MW 10:00am - 10:50am	Seats (Total: 35) PFR 1111
0301	Michel Cukier MW 11:00am - 11:50am	Seats (Total: 35) PFR 1111

HACS201 **Introduction to UNIX**

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Credit only granted for: HACS201 or CMSC216. Additional information: Required course for students who have not completed the ACES Living-Learning Program or taken CMSC216.

Introduction to the operating system UNIX through lectures and hands-on assignments.

0101	Bertrand Sobesto	Seats (Total: 26)
	Tu 5:30pm - 6:20pm	PHY 2211

HACS202 **Group Project in Cybersecurity**

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and cannot have been an ACES Living-Learning Program student (i.e., have taken HACS100, HACS101 and HACS200).

The group project in this course will combine technical, analytical, and communication skills, further engaging students in the practice of cybersecurity. Students will learn about design concepts and data analysis as they engage in a team project designing, deploying, and collecting and analyzing data from a honeypot. The hands-on nature of the course will give students experiential insight about how and why attackers attack and how to engage in protective measures to prevent attacks.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Bertrand Sobesto	Seats (Total: 52)
	Tu 6:30pm - 9:15pm	PHY 4311

HACS208A **Accounting and Economic Aspects of Cybersecurity**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

In today's interconnected digital world, cybersecurity has become one of the most important issues confronting organizations in both the private and public sectors of an economy. Indeed, cybersecurity is a national and economic security priority in countries throughout the world. This is an interdisciplinary Honors Seminar offered as part of UMD's ACES program. The primary objective of this course is to discuss the relationships among accounting, economics and cybersecurity, with a focus on the important roles of accounting and economics in understanding the issues related to cybersecurity. A basic framework for assessing the interactions among accounting, economics, and cybersecurity will be developed and discussed. A secondary objective of the course is to assist ACES students in developing their ability to conduct original and applied research on topics related to "accounting and economic aspects of cybersecurity."

0101	Lawrence Gordon	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	VMH 3330H

HACS208E **Introduction to Reverse Engineering**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

An introduction to software reverse engineering tools and methodologies. Fundamental topics will be introduced: compilers, linkers, loaders, assembly language, as well as static and dynamic analysis tools. We will motivate some reasons for software reverse engineering and examine the background material necessary for an understanding of the subject. This will include computer architecture and low-level systems programming, as well as an introduction to x86_64 assembly language. We will apply this newly acquired knowledge while learning about static and dynamic analysis tools used by practitioners of software reverse engineering.

0101	Aaron Hertz	Seats (Total: 24)
	W 3:00pm - 5:45pm	PFR 0103

HACS208I **Security Incident Handling and Management**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Examines the many roles, capabilities, organizations, and objectives involved in security incident handling and management. Core course content includes three major components: learning about the skill sets that people use, participating in role playing exercises that increasingly build upon this knowledge, and finally conducting exercises in a lab environment simulating security incident discovery, handling, and management.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Benjamin Wall	Seats (Total: 26)
	TuTh 11:00am - 12:15pm	PFR 1111

HACS208Z **Methods for Solving (And not Solving) Puzzles**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Surveys modern problems from different domains in computer science and cybersecurity to train our minds to appropriately approach puzzles we encounter in the future. This course covers graph theory, including what a graph is and the kinds of objects it can model, connectivity types, and vertex/edge covers algorithms. This course covers computer networks, including the models used for network stacks and what algorithms are used to solve difficult problems present in our current networks. This course covers algorithm analysis, including greedy algorithms, big O complexity, and how to analyze the capabilities and limitations of an algorithm. This course introduces cryptography, including the difference between public-key and symmetric-key cryptography, how RSA works, and the cryptanalysis of well-known cryptosystems.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program

0101	Zulema Belyeu	Seats (Total: 26)
	Th 5:30pm - 8:15pm	PFR 1111

HACS279 **Undergraduate Research in Cybersecurity**

(Perm req)

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS287 **Undergraduate Research in Cybersecurity**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS297 **Cybersecurity Experience Reflection**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity (such as the Division of Information Technology, the ACES competition team or in an ACES outreach program), or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in the other ACES coursework.

0101	Sarah Herberger	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	PFR 1111

HACS318A **Cybersecurity Professionals Colloquium Series; Current Issues**

The Cybersecurity Professionals Colloquium Series explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. The colloquium series consists of guest lectures of cybersecurity professionals. In written assignments, students will not only summarize the lecture content but also reflect on the significance of the lecture content for the field of cybersecurity.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program

0101	Lindsey Schrott	Seats (Total: 75)
	W 6:30pm - 8:30pm	PFR 1105

HACS408C **Interpersonal Cyber Communications**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

Designed to prepare students to participate in culturally responsible and environmentally appropriate communication in the workforce. Students will explore the industry standards for writing technical reports, as well as the variances between persuasive, team, written, and oral communication styles.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Repeatable to 6 credits if content differs.

0101	Adam Nixon	Seats (Total: 26)
	TuTh 3:30pm - 4:45pm	PHY 4311B

HACS408T **Penetration Testing**

(Perm req)

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

A hands-on, technically rigorous experience that prepares students for real-world work in penetration testing and offensive security. This course will allow students to gain proficiency and become comfortable using the tools, techniques, and methodologies that represent the state of the art in penetration testing today. Students should be comfortable on the command line, and a technical exposure to networking and basic proficiency in some scripting language (Bash, Ruby, or Python) is expected.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Repeatable to 6 credits if content differs.

0101	Kevin Bock	Seats (Total: 26)
	M 5:00pm - 7:45pm	PHY 4311B

HACS408V **Data Analysis and Visualization for Cybersecurity**

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

Focuses on exploratory and statistical data analysis, data and information visualization, and the presentation and communication of analysis results. These topics will be presented and explored in the context of and with applications to cyber security related data. Examples and illustrations will often involve the R programming language, but prior experience with R is not required and submitted work may involve the use of other languages and tools at times.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Repeatable to 6 credits if content differs.

0101	Edward Condon	Seats (Total: 26)
	TuTh 5:00pm - 6:15pm	PHY 4311B

HACS479 **Undergraduate Research in Cybersecurity**

(Perm req)

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS497 **Cybersecurity Experience Reflection**

(Perm req)

Prerequisite: Students may enroll concurrently with or after completing a cybersecurity related internship experience of at least 135 hours. Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and must not have taken HACS297. Credit only granted for: HACS297 or HACS497.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in other ACES coursework. This course is intended to help students reflect on their cybersecurity experience and to learn from others' cybersecurity experiences. It is also intended to help students gain professional skills that will aid in their future career.

0101	Cassandra Harrington	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	PHY 4311B

HACS498 **Cybersecurity Group Problem Solving**

(Perm req)

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in team problem solving activities in order to gain greater insight into a specific area within cybersecurity and to obtain an appreciation for the subtleties and difficulties associated with these activities in order to prepare students for graduate school and the workforce. Students engage in a semester long problem solving or development project under the mentorship of a industry specialist and with the guidance of university faculty. Through the exercise the students will develop teamwork experience and professional communication skills in addition to experience of the project itself. The project might be evaluation, creation, testing or analysis of some area of cybersecurity as needed by the mentor-sponsor. A contract of what will be accomplished is required must be agreed upon by the mentor, the student and the ACES leadership before the project can begin.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and permission of UGST-HCOL- ACES Cybersecurity Program.

0101	Thomas Woods Contact instructor or department for details.	Seats (Total: 8)
0201	Neal Ziring Contact instructor or department for details.	Seats (Total: 9)
0301	David Raynor Contact instructor or department for details.	Seats (Total: 10)

HBUS Interdisciplinary Business Honors Spring 2024

HBUS105 **The Future of Analysis: Making Data Driven Decisions in Business**

Prerequisite: HBUS100.

Students will address questions regarding how business is being shaped by the increased use of data. The course draws from various quantitative, computation, and technical fields to develop a big picture understanding of data science in business. Through examples and applications, students will address the challenging questions related to artificial intelligence, data science bias, and privacy.

0101	Joseph Bailey TuTh 9:30am - 10:45am	Seats (Total: 65) PFR 1105

HBUS205 **Capstone in Interdisciplinary Business**

Prerequisite: HBUS100, HBUS105, and HBUS200. Restriction: Must be in the Interdisciplinary Business Honors Program.

As the capstone course in the Interdisciplinary Business Honors (IBH) Program, this course will give students the opportunity to apply what they have learned in the IBH program to a real-world company. This company will help present students with an opportunity to address a pressing challenge

0101	Joseph Bailey, David Kirsch M 5:00pm - 7:40pm	Seats (Total: 60) ESJ 2212

HDCC Design Cultures and Creativity Spring 2024

HDCC106 **Seminar in Design Cultures & Creativity**

Restriction: Must be in the Design Cultures and Creativity Honors College Living/Learning program.

Introduction to the methods and theory of design production, with emphasis on creative and expressive platforms.

0101	Alexis Lothian MW 2:00pm - 3:15pm	Seats (Total: 13) PFR 0111
0201	William Evans Th 12:30pm - 3:00pm	Seats (Total: 13) PAC 1108
0301	Elizabeth Phipps TuTh 9:30am - 10:45am	Seats (Total: 13) PFR 0111
0401	Cliff Bakalian TuTh 11:00am - 12:15pm	Seats (Total: 13) PFR 0111
0501	Victoria Van Hyning MW 10:00am - 11:15am	Seats (Total: 13) PFR 0111

HDCC209A **Capstone in Design Cultures and Creativity**

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Jin Choi W 4:00pm - 6:30pm	Seats (Total: 16) ONLINE

HDCC209B **Capstone in Design Cultures and Creativity**

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Shari Feldman Tu 4:30pm - 7:00pm	Seats (Total: 16) PFR 0111

HDCC209C **Capstone in Design Cultures and Creativity**

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Shari Feldman Th 4:30pm - 7:00pm	Seats (Total: 16) PFR 0111

HDCC209D **Capstone in Design Cultures and Creativity**

Capstone for Design Cultures and Creativity in which students will develop their program capstone projects under the supervision of a faculty mentor, with regular checkpoints and presentations to track progress.

0101	Jonathan Reyes M 4:00pm - 6:30pm	Seats (Total: 16) PFR 0111

HDCC379 **Design Cultures and Creativity Independent Study**

Involves research and/or creative scholarship directed by individual DCC faculty outside of the formal classroom structure.

0101	Damien Pfister Contact instructor or department for details.	Seats (Total: 5)

HEBR Hebrew Spring 2024

HEBR107 **Intensive Elementary Hebrew II**

Prerequisite: HEBR106 or HEBR111; or must have appropriate score on World Language Placement Test; or students who have taken courses with comparable content may contact the department. Credit only granted for: HEBR107 or HEBR112.

A continuation of intensive study of fundamentals of Hebrew reading, writing, listening, speaking and Israeli culture. Covers past tense in all verb categories, basic syntax and builds vocabulary.

0101	Avital Karpman TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 2125 ONLINE
0201	Avital Karpman TuTh 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 15) JMZ 2125 ONLINE

For other courses, see JWST - Jewish Studies.

HEBR112 **Elementary Hebrew II**

Prerequisite: HEBR111; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed HEBR103; and must not have completed HEBR104. Credit only granted for: (HEBR103 and HEBR104) or HEBR112.

Continuation of HEBR 111.

Contact department for information to register for this course.

HEBR207 **Intensive Intermediate Hebrew II**

Prerequisite: Must have completed HEBR206 OR HEBR211; or have the appropriate Score on the World Language Placement Test; or students who have taken courses with comparable content may contact the department. Credit only granted for: HEBR207 or HEBR212.

A review of the fundamentals of Hebrew grammar, reading, writing, listening and speaking.

0101	Avital Karpman	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm Class time/details on ELMs	JMZ 2125 ONLINE

HEBR212 **Intermediate Hebrew II**

Prerequisite: HEBR211; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not have completed HEBR203; and must not have completed HEBR204. Credit only granted for: (HEBR203 and HEBR204) or HEBR212.

Continuation of HEBR211.

Contact department for information to register for this course.

HEBR298B **Introduction to the Hebrew Bible/Old Testament**

Cross-listed with: JWST262, ENGL262. Credit only granted for: JWST262, HEBR298B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

Contact department for information to register for this course.

HEBR314 **Conversation and Composition II**

Prerequisite: HEBR313; or students who have taken courses with comparable content may contact the department.

A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

0101	Aliza Sandalon	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HEBR369A **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369B **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369C **Special Topics in Study Abroad III; Hebrew Upper Advanced**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369D **Special Topics in Study Abroad III; Hebrew Upper Intermediate**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR381 **Introduction to Hebrew Cultural Studies**

Prerequisite: HEBR314; or permission of instructor.

Critical study of Israeli culture with emphasis on literature, film, and art as sites of struggle over political and social meaning during times of cultural transformation. Focus on the historical development of Israeli identity and gender, in particular within the military and Zionist youth movements. Taught in Hebrew.

Contact department for information to register for this course.

HEBR386 **Experiential Learning**

(Perm req)

Restriction: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor; and junior standing or higher.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEBR398W **Special Topics in Hebrew Studies; Israeli Slang**

A broad range of cultural and societal topics pertaining to the communication of modern Hebrew, taught at the advanced level.

Cross-listed with ISRL349W and JWST319W. Credit only granted for HEBR398W, ISRL349W, or JWST319W. Examination of the history, linguistics, politics and sociology of Modern Israeli Hebrew slang, including influences from popular American culture, technology, the military, Arabic and immigrant group languages. Taught in English; course materials in Hebrew with translation.

0101	Avital Karpman	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

HEBR499 **Independent Study in Hebrew**

(Perm req)

Independent study under faculty supervision.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HESI318E **Applied Contextual Leadership; Exploring Strengths and Values for Effective Leadership**

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

0101	Noel Kuriakos	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ATL 1434

HESI318G **Applied Contextual Leadership; Greek Presidents Class**

(Perm req)

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Course restricted to Fraternity and Sorority Presidents. For permission, please contact Tyler Huddleston at thuddles@umd.edu

0101	Tyler Huddleston	Seats (Total: 55)
	W 3:30pm - 6:30pm	SQH 1117

HESI318O **Applied Contextual Leadership; Orientation Leader**

(Perm req)

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Restricted to students hired to be on the Orientation staff

0101	Ashley Sankowski , Austin McDonald	Seats (Total: 40)
	Tu 6:00pm - 8:30pm	SQH 1101
	Restricted to students hired to be on the 2023 Orientation Staff.	

HESI318T **Applied Contextual Leadership; Foundations and Applications of Adventure Leadership Instruction**

(Perm req)

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Permission of Instructor needed. Required course to become an Adventure Trip Leader with the RecWell Adventure Program. Contact Amanda Preperato at aprep@umd.edu to schedule an interview.

0101	Meghan Loughry	Seats (Total: 8)
	Tu 6:00pm - 9:00pm	ERC B0170E

HESI421 **Leadership and the Black Community**

Credit only granted for: HESI418B or HESI421. Formerly: HESI 418B.

Examines leadership from the perspective of the African American experience. Specifically, we will explore the concept and differing meanings of "leader and leadership" within the African-American community in the United States. Issues of leaders and leadership will be examined as influenced by political, cultural, and historic events. The course will place particular emphasis on colleges and universities as a microcosm of the larger society and as a cultural site for exploring and assessing issues of African American leadership.

0101	Brandon Dula	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	EDU 3315

HESI422 **Women and Leadership**

Credit only granted for: HESI418G or HESI422. Formerly: HESI418G.

The primary goal of this course is for students to develop an understanding of women's leadership and women's ways of influencing organizations. The course will rely heavily on the idea that you must know yourself first before you explore how "you" fit into the organization and how that organization fits into a broader context such as nation, culture, or community. We will talk about the social constructs of leadership and gender, including systems and structures, and the role media, television, movies, and sports play in defining women and their leadership in a cultural context. The exploration of women leaders will be broad based including the role that gender identity and expression, race, sexual orientation, country of origin, and ethnicity/culture play in women's definition and the expression of their leadership.

0101	Marsha Guenzler-Stevens	Seats (Total: 20)
	Tu 2:00pm - 4:45pm	TWS 0234

HESI424 **Leadership and the Jewish Community**

Credit only granted for: HESI418F or HESI424. Formerly: HESI418F.

Offers students the opportunity to critically examine leadership and leadership identity development in relation to Jewish culture and identity. Explores how Jewish culture and ethnicity influence leadership styles and the role that leadership has played within Jewish history. Students will explore general leadership theories as well as personal leadership identity development in both an overall sense and as a member of the Jewish community. Examines leaders within the Jewish movement and how their leadership has influenced Jewish communities and explores issues facing the Jewish community both on college campuses and in the world and prepare student leaders to act as advocates for the Jewish community.

0101	Ari Israel	Seats (Total: 35)
	M 2:00pm - 4:45pm	TWS 0207

HESI489 **Field Experiences in Higher Education, Student Affairs, and International Education Policy**

Planned field experience in education and community related activities. Credit not to be granted for experiences accrued prior to registration.

1401	Brittany Devies Contact instructor or department for details.	Seats (Total: 5)
1501	Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)
2501	Jazmin Pichardo Contact instructor or department for details.	Seats (Total: 5)
7301	Kimberly Griffin Contact instructor or department for details.	Seats (Total: 10)

HESI655 **Organizational Dimensions of Student Affairs**

Prerequisite: EDCP610; or permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDCP655 or HESI655. Formerly: EDCP655.

Exploration of leadership and organizational change of student affairs programs in post-secondary education.

0101	Shelvia English Th 4:30pm - 7:15pm Class time/details on ELMs	Seats (Total: 15) EDU 1315 ONLINE

HESI771 **The College Student**

Credit only granted for: EDCP771 or HESI771. Formerly: EDCP771.

A demographic study of the characteristics of college students as well as a study of their aspirations, values, and purposes.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide opportunities for virtual, project-based, international collaboration. Learn more about Global Classrooms: go.umd.edu/gci.

0101	Christopher Travers W 2:00pm - 4:45pm	Seats (Total: 15) WDS 1102

HESI773 **Designing Qualitative Research in Counseling and Student Affairs Contexts**

Credit only granted for: EDCP773 or HESI773. Formerly: EDCP773.

Introduction to philosophical and epistemological foundations, methodologies and methods associated with qualitative research designs appropriate in student affairs and counseling contexts.

0101	Christopher Travers Th 4:30pm - 7:15pm Class time/details on ELMs	Seats (Total: 15) EDU 1121 ONLINE
0201	Candace Moore Th 4:45pm - 7:30pm Class time/details on ELMs	Seats (Total: 15) JMZ 0205 ONLINE

HESP Hearing and Speech Sciences Spring 2024

HESP120 **Introduction to Linguistics**

Additional information: HESP120 is required for HESP majors. HESP majors may not substitute LING200.

An introduction to the scientific study of natural language with focus on the basic concepts of phonology, syntax, semantics and pragmatics, with subsequent attention to the applied aspects of linguistic principles.

0101	Emily Lord TuTh 2:00pm - 3:15pm	Seats (Total: 45) ASY 3211
0201	Dominique Mwepu TuTh 6:00pm - 7:15pm	Seats (Total: 45) ASY 3211

HESP150 **Introduction to Language Science**

Language science is the scientific study of how humans acquire, use, comprehend, and produce language. Most people in all societies learn and use their native language or languages with apparent ease - but don't be fooled: languages are highly complex, and speaking and understanding language requires some amazing feats of mental acrobatics. Thus there are many opportunities for difficulties with language, which is the focus of our field. Understanding difficulties with speech, language, and hearing require first understanding how processing works when language is successful - the psychological (behavioral) and neurobiological (brain) factors that enable people to learn and use language despite its intricacies, the structure and properties of language itself, and how knowledge of language is acquired, represented, and processed in the mind and brain.

PDH1	Manaar Zuhurudeen Tu 6:30pm - 9:00pm *Must be in the Hearing & Speech in the Evening (HESPIE) program, online.*	Seats (Total: 30) ONLINE

HESP202 **Introduction to Hearing and Speech Sciences**

An introduction to communication sciences and disorders; a survey of the bases of normal speech, language and hearing ability, major forms of communicative disorders and their treatment.

0101	Christina Shields, Norah Aljunaidi	Seats (Total: 99)
	TuTh 9:30am - 10:45am	ASY 2309

HESP204 **Multicultural Issues in Communication Disorders**

Enables students to understand cultural influences on communication, communication disorders, language, and society. Exploration of (self and others') perceptions, stereotypes, media influences and identity will be used to understand how society shapes and responds to language usage. We will also examine the legal and ethical implications of serving culturally and linguistically diverse populations.

0101	Eusebia Mont	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	LEF 1220

HESP214 **The Research Behind Headlines on Words, Thought, and Behavior**

Cross-listed with: HNUH278A. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

0101	Seongsil Lee	Seats (Total: 45)
	TuTh 4:30pm - 5:45pm	TWS 0236

HESP300 **Introduction to Psycholinguistics**

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department. Recommended: HESP120.

An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

0101	Jared Novick	Seats (Total: 53)
	TuTh 9:30am - 10:45am	SQH 1119

HESP303 **Phonetic transcription**

Prerequisite: Permission of instructor.

An introduction to broad and narrow phonetic transcription, and to physiology of speech production. The primary goal of the course is to provide knowledge about phonetics and the ability to use this knowledge in an applied setting.

PBH1	Rebecca Pereira	Seats (Total: 30)
	Th 6:30pm - 8:10pm	LEF 1201
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP306 **Anatomy and Physiology of Speech & Hearing**

Prerequisite: Permission of instructor.

This is a 4-credit course focusing on the biological and neurological bases of human speech production and human hearing, namely the anatomy, physiology, and neurology of the vocal/speech mechanism and the hearing mechanism.Specifically, respiration, phonation, resonance, articulation, swallowing, and hearing will be highlighted. A strong understanding of normal anatomy and physiology is essential for the successful evaluation and treatment of patients with speech, language, swallowing and hearing disorders.

PBH1	Dawn Marsiglia, Adam Redmond	Seats (Total: 30)	
	Tu 6:30pm - 9:00pm Class time/details on ELMs	LEF 1201 ONLINE	 Discussion
	Must be in the Hearing & Speech in the Evening (HESPIE) program.		

HESP311 **Anatomy, Pathology and Physiology of the Auditory System**

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

0101	Lacey Curry	Seats (Total: 30)
	MW 9:30am - 10:45am	SQH 1121

HESP386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of BSOS-Hearing & Speech Sciences department.

Students will have the opportunity observe and/or participate in therapy activities provided by a speech-language pathologist or audiologist in this experiential learning course.

Contact department for information to register for this course.

HESP388 **Undergraduate Research Experience**

(Perm req)

Undergraduate research experience working under HESP faculty or outside affiliates.

Contact department for information to register for this course.

HESP389 **LEAP Classroom Internship**

(Perm req)

Participation in a language-based, literacy-rich preschool classroom for children with speech-language disorders. Students will learn behavior management techniques, curriculum planning and implementation, facilitation of play among children, data collection and teaching srategies.

Contact department for information to register for this course.

HESP396 **SIGNA Undergraduate Peer Mentor Clinical Practicum**

Prerequisite: HESP202. Recommended: Coursework in PSYC, EDUC, Human Development, Disability Studies. Restriction: Sophomore standing or higher; and permission by instructor .

Students are paired with neurodivergent UMD students to support mentoring in social communication and executive functioning skills. Peer mentors are selected based on a rigorous application process for fall and spring semesters. Selected peer mentors will engage in an orientation process which includes in depth information on neurodiversity and the intersectionality of DEI; attend a weekly lecture and group sessions to acquire up-to-date knowledge and application of knowledge with neurodiverse populations; and manage meetings with neurodivergent students one-to-one on a weekly basis to support carryover of social coaching and executive functioning strategies.

0101	Kathryn Dow-Burger, Shawndre Jones-Johnson Contact instructor or department for details.	Seats (Total: 10)

HESP397 **SIGNA Undergraduate Peer Coach Clinical Practicum**

Prerequisite: HESP202. Recommended: Coursework in PSYC, EDUC, Human Development, Disability Studies, HESP396. Restriction: Junior standing or higher; and permission of instructor.

Students co-lead weekly groups for neurodivergent college students, coaching on topics and strategies pertaining to social communication and executive functioning skills. Peer coaches create outlines for weekly groups which are individualized by needs and interests. Peer coaches plan monthly social outings for SIGNA personnel to support generalization of executive functioning and social communication skills. Peer coaches are selected based on a rigorous application process for fall and spring semesters. Students who previously served in a peer mentor role in SIGNA are given priority consideration as peer coaches. Peer coaches will engage in an orientation process which includes in depth information on neurodiversity; attend weekly lectures to acquire up-to-date knowledge of neurodiverse populations; and attend group debrief meetings with the course instructor on a weekly basis to support implementation of social coaching and executive functioning feedback from groups.

0101	Kathryn Dow-Burger, Shawndre Jones-Johnson Contact instructor or department for details.	Seats (Total: 10)

HESP400 **Speech and Language Development in Children**

Prerequisite: Minimum grade of C- in HESP300; or permission of BSOS-Hearing & Speech Sciences department. Recommended: LING200 or HESP120. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Analysis of the normal processes of speech and language development in children.

0101	Eliza Thompson TuTh 9:30am - 10:45am	Seats (Total: 35) TWS 0221
PDH1	Tonya Williams-Walker Th 6:30pm - 9:00pm	Seats (Total: 30) ONLINE
	Must be in the Hearing & Speech in the Evening (HESPIE) program, online.	

HESP402 **Language and Phonological Disorders in Children**

Prerequisite: Minimum grade of C- in HESP400; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program.

Etiology, assessment and treatment of language and phonological disorders in children.

0101	Nan Ratner TuTh 12:30pm - 1:45pm	Seats (Total: 45) TYD 0117
PBH1	C'Rai Weeden Shannon Th 6:00pm - 8:30pm	Seats (Total: 25) SQH 1111
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP403 **Introduction to Phonetic Science**

Prerequisite: Minimum grade of C- in HESP305; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to physiological, acoustic and perceptual phonetics; broad and narrow phonetic transcription; current models of speech production and perception.

0101	Margaritis Fourakis TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 2119

HESP407 **Bases of Hearing Science**

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Fundamentals of hearing, including the physics of sound, anatomy and physiology of peripheral and central auditory nervous system, psychophysical procedures used in measurement of auditory sensation and perception, and topics in psychological acoustics.

0101	Matthew Goupell MW 3:30pm - 4:45pm	Seats (Total: 60) TYD 0117

HESP411 Introduction to Audiology

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

0101	Sarah Sohns TuTh 3:30pm - 4:45pm	Seats (Total: 42) ASY 3203
PDH1	Christopher Zalewski M 6:00pm - 8:30pm	Seats (Total: 30) ONLINE

HESP413 Aural Rehabilitation/Habilitation

Prerequisite: HESP411. Restriction: Sophomore standing or higher.

The fundamental aspects of aural rehabilitation therapy for both adults and children are introduced to students. Class time will consist of lectures, discussions, and hands-on activities.

0101	Eric Hoover TuTh 9:30am - 10:45am	Seats (Total: 50) ARC 1103
PDH1	Monica Allgauer W 6:00pm - 8:30pm	Seats (Total: 30) ONLINE

HESP415 Principles and Methods in Speech-Language Pathology

Prerequisite: HESP400. Restriction: Must be in Hearing and Speech Sciences program.

The principles and methods required to provide treatment of speech and language disorders to children and adults. Topics include writing goals and objectives, programming,teaching strategies,session design, data collection, behavior modification and counseling.

0101	Manaar Zuhurudeen F 10:00am - 11:40am	Seats (Total: 45) ASY 3203

HESP417 Principles and Methods in Speech-Language Pathology and Audiology

Prerequisite: HESP400 and HESP411; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

The principles underlying the treatment of speech, language and hearing disorders in children and adults.

PBH1	C'Rai Weeden Shannon, Kimberly Jenkins	Seats (Total: 25)
	M 6:30pm - 9:00pm	TWS 1321
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP418A **Clinical Practice in Speech-Language Pathology and Audiology; Audiology Option**

(Perm req)

Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

For majors only.

0101	Sarah Sohns	Seats (Total: 10)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

HESP418B **Clinical Practice in Speech-Language Pathology and Audiology; Speech Pathology Option**

(Perm req)

Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

0101	Kristin Slawson	Seats (Total: 6)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

HESP458F **Global Perspectives in Communication Sciences and Disorders; International Service Learning Program**

Provides students with a supervised and multidisciplinary international service learning (ISL) opportunity for the reciprocal exchange of cultural perspectives, knowledge, and skills. Through interactions with Ghana health and educational professionals as well as patients/clients and their families, students will gain perspective on broader health issues such as determinants of health, health disparities, and the global burden of disease. Students will have learning opportunities in governmental and non-governmental organizations (NGOs) to gain knowledge of and experience with varied healthcare and educational systems in under-resourced communities. In addition to observing and working with Ghana Speech-Language Therapists (SLT) and other rehabilitative professionals, students will assist faculty in the provision of educational workshops for professionals and/or outreach activities for the community.

SB12	Eliza Thompson	Seats (Total: 0)
	Meets March 14, 2024 - March 23, 2024	
	Contact instructor or department for details.	

HESP468H **Professional Development in Research and Academia; Honors Seminar: Professional Development**

The purpose of this seminar is to complement your honors project with practical advice on how to navigate successful careers in research and academia. As you progress through your undergraduate years (especially if you work in a lab), you will likely make several unofficial observations about life as a graduate student, postdoc, or professor, and overhear conversations that include new terminology that may be confusing (e.g., research mentorship, grants, conference abstract, tenure). This can create a mysterious aura around what it is like to obtain your PhD and work in academia generally. In this class, we will cover tips and skills that are often passed along informally in the lab; but here, we will discuss these issues overtly from a range of perspectives, experiences, and best practices.

0101	Matthew Goupell, Jared Novick	Seats (Total: 10)
	F 1:00pm - 1:50pm	KEY 0119

HESP469 **Honor Thesis Research**

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469A **Honor Thesis Research**

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469B **Honor Thesis Research**

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP498 **Seminar**

Selected topics in human communication and its disorders.

Contact department for information to register for this course.

HESP498C **Seminar; Cochlear Implants**

Selected topics in human communication and its disorders.

0101	Nicole Nguyen	Seats (Total: 20)
	W 9:30am - 12:00pm	SQH 1103

HESP499 **Independent Study; Topics in the Hearing and Speech Sciences**

(Perm req)

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP499H **Independent Study**

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP601 **Foundations of Scientific Inquiry**

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor. Additional information: Course meets over three semesters for the duration of the Masters of Speech-Language Pathology program.

Overview of methods of empirical research used in Communication Sciences and Disorders. The course will focus on identifying, critically analyzing, and writing about empirical research.

0101	Rochelle Newman	Seats (Total: 30)
	Contact instructor or department for details.	

HESP602 **Advanced Seminar in Neurological Bases of Communication**

(Perm req)

Prerequisite: An undergraduate course in human neuroanatomy. Restriction: Permission of BSOS-Hearing & Speech Sciences department.

An advanced discussion of the neural bases of human communication and its disorders, neuroimaging, neural plasticity and neurological evaluations, with emphasis on current developments and critical analysis.

0101	Yasmeen Shah	Seats (Total: 30)
	Th 9:00am - 10:40am	LEF 0135

HESP603 **Seminar in Cultural and Linguistic Diversity in Communication Disorders**

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor. Additional information: Course meets over four semesters for the duration of the Masters of Speech-Language Pathology program.

Overview of cultural and linguistic diversity (CLD) in general, and the impact of CLD on communication, communication disorders, and the professional practice of Speech-Language Pathology

0101	Eusebia Mont	Seats (Total: 10)
	F 12:30pm - 2:00pm	JMZ 2125

HESP605 **Assessment & Intervention in Bilingual Populations**

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program.

Integrates foundational knowledge pertaining to bilingualism in speech-language pathology. This course provides students with a framework for working with individuals from culturally and linguistically diverse backgrounds. This course is designed to educate and train student clinicians to serve as bilingual speech-language pathologists.

PWH1	Karen Miranda	Seats (Total: 30)
	Tu 6:00pm - 8:30pm	ONLINE
	Must be in the Bilingual Speech-Language Pathology for Practitioners, Online. Golden ID students are not eligible for this section.	

HESP611 **Cognitive Disorders in Adults**

Prerequisite: Must have completed or be concurrently enrolled in HESP610; and must have knowledge of basic human neuroanatomy. Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Etiology, diagnosis and management of cognitive problems of adults associated with aging, brain injury and degenerative conditions.

0101	Yasmeen Shah	Seats (Total: 30)
	Meets March 25, 2024 - May 9, 2024	
	Tu 9:15am - 12:50pm	LEF 0135

HESP612 **Fluency Disorders**

(Perm req)

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

The nature of fluency disorders. Principles, methods and procedures for the clinical management of fluency disorders in children and adults.

0101	Vivian Sisskin	Seats (Total: 31)
	Meets January 24, 2024 - March 13, 2024	
	Tu 9:15am - 12:50pm	LEF 0135

HESP620 **Speech Production Disorders Across the Lifespan**

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Assessment and treatment of phonological, articulatory and resonance disorders arising from various etiologies including developmental conditions, structural abnormalities, and nervous system damage.

0101	Kristin Slawson, Courtney Overton	Seats (Total: 31)
	Th 1:00pm - 4:30pm	SQH 1103

HESP632 **Medical Audiology**

Prerequisite: HESP311. Corequisite: HESP606.

Overview of auditory pathologies, and their assessment and management in the medical setting.

0101	Rebecca Bieber	Seats (Total: 30)
	M 5:00pm - 7:30pm	SQH 1121

HESP636 **Geriatric Audiology**

Prerequisite: HESP606 and HESP700. Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)).

Research findings are presented on the physical effects of aging on the auditory periphery and central nervous system, as well as the consequences of aging on behavioral and electrophysiologic measures of auditory function. Clinical implications in the effects of physiologic and cognitive aging on auditory performance will be discussed.

0101	Samira Anderson	Seats (Total: 15)
	Tu 5:00pm - 7:00pm	LEF 0135

HESP638 **Research Practicum**

(Perm req)

Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.

Contact department for information to register for this course.

HESP639C **Special Topics in Hearing and Speech Sciences; Cochlear Implants**

Intensive coverage of selected topics of current interest.

0101	Nicole Nguyen W 9:30am - 12:00pm	Seats (Total: 20) SQH 1103	

HESP639E **Special Topics in Hearing and Speech Sciences; Quantitative Methods for Hearing, Speech, and Language Sciences**

Intensive coverage of selected topics of current interest.

0101	Paul Mayo Th 3:30pm - 6:00pm	Seats (Total: 16) ARC 1123	

HESP639S **Special Topics in Hearing and Speech Sciences; Infant Speech Perception and Word Learning**

Intensive coverage of selected topics of current interest.

0101	Rochelle Newman M 2:00pm - 4:30pm	Seats (Total: 12) LEF 0104	

HESP648B **Clinical Practice in Speech: Therapeutic Procedures**

(Perm req)

Prerequisite: HESP648A. Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the treatment of speech disorders.

1701	Courtney Overton Th 12:00pm - 12:50pm	Seats (Total: 4) LEF 0135	Lab
1901	Ashley Webb Th 12:00pm - 12:50pm	Seats (Total: 4) LEF 0135	Lab
2101	Jessica Wertz Th 12:00pm - 12:50pm	Seats (Total: 4) LEF 0135	Lab
2301	Eliza Thompson Th 12:00pm - 12:50pm	Seats (Total: 4) LEF 0135	Lab
2801	Eusebia Mont Th 12:00pm - 12:50pm	Seats (Total: 4) LEF 0135	Lab
3701	Kathryn Dow-Burger Th 12:00pm - 12:50pm M 12:00pm - 1:50pm F 2:00pm - 3:50pm	Seats (Total: 5) LEF 0135 LEF 0135 LEF 0135	 Lab Lab Lab

HESP649A **Clinical Practice in Audiology: Diagnostic Procedures**

(Perm req)

Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the diagnosis of hearing disorders.

1101	Lacey Curry Contact instructor or department for details.	Seats (Total: 4)
1501	Lisa Rickard Contact instructor or department for details.	Seats (Total: 4)
2401	Christina Shields Contact instructor or department for details.	Seats (Total: 4)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 4)
3501	Sarah Sohns Contact instructor or department for details.	Seats (Total: 4)

HESP649B **Clinical Practice in Audiology - Aural Rehabilitation**

(Perm req)

Prerequisite: HESP649A.

A clinical practicum course with individualized instruction, which focuses on the skills necessary to provide intervention and counseling for a wide range of disorders of the auditory system in patients of varying ages and cultural backgrounds. Each student will be various activities across three semesters (Spring YR2, Summer YR2, and Fall YR3). Students may work individually or in pairs to provide hearing loss intervention, auditory training, hearing loss prevention education, and communication strategy training. The student is expected to prepare for each session with a complete clinical plan, educational materials, and counseling strategies. Students must meet with the Audiologist prior to the aural rehabilitation (AR) session to discuss the plan of care. During the visit, the student will perform hearing loss handicap assessments, lead counseling sessions regarding rehabilitative options, make modifications to existing treatment plans/hearing aids, and educate the patient about their hearing. Following the visit, the student will document the encounter according to clinical protocol and ethical standards using the electronic medical records system. All patient-related information will be handled within a secure computer environment which meets HIPAA regulations for protected health information.

Contact department for information to register for this course.

HESP659F **Global Perspectives in Communication Sciences and Disorders; International Service Learning Program**

Provides students with a supervised and multidisciplinary international service learning (ISL) opportunity for the reciprocal exchange of cultural perspectives, knowledge, and skills. Through interactions with Ghana health and educational professionals as well as patients/clients and their families, students will gain perspective on broader health issues such as determinants of health, health disparities, and the global burden of disease. Students will have learning opportunities in governmental and non-governmental organizations (NGOs) to gain knowledge of and experience with varied healthcare and educational systems in under-resourced communities. In addition to observing and working with Ghana Speech-Language Therapists (SLT) and other rehabilitative professionals, students will assist faculty in the provision of educational workshops for professionals and/or outreach activities for the community.

Contact department for information to register for this course.

HESP701 **Hearing Aids II**

(Perm req)

Prerequisite: HESP700. Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Advanced issues in amplification technology, prescriptive hearing aid selection, and management of amplification systems for special populations.

Alternating face-to-face/online class meetings, see the instructor for details.

0101	Christina Shields, Lisa Rickard M 3:30pm - 6:00pm Contact instructor or department for details.	Seats (Total: 10) SQH 1123

HESP708 **Independent Study**

(Perm req)

Individual research projects under guidance of a faculty member.

Contact department for information to register for this course.

HESP724 **Research Design**

Prerequisite: Must have completed a course in basic statistics.

Evaluations of research designs, critique of published articles and student involvement in designing experiments on assigned topics.

0101	Yi Ting Huang M 1:00pm - 3:30pm	Seats (Total: 10) WDS 1131

HESP728 **Advanced Clinical Practice in Speech; Advanced Graduate Laboratory Practicum in Speech-Language Pathology**

(Perm req)

Clinical internship in selected off-campus facilities.

Contact department for information to register for this course.

HESP729 **Advanced Clinical Practice in Audiology; Advanced Graduate Laboratory Practicum in Audiology**

(Perm req)

Clinical internship in selected off-campus facilities.

1301	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 25)

HESP731 **Seminar in Clinical Supervision**

Prerequisite: In at least the third year in AuD program.

Supervising students and employees can be a daunting task. Fostering the next generation of doctors of audiology and support staff requires a unique set of knowledge and skills. This course is designed to explore the theoretical concepts in the supervisory paradigm as well as real-world scenarios. Supervision is not a "one-size fits-all" process, therefore the intricacies and strategies of the supervisor-supervisee relationship must be carefully considered.

0101	Nicole Nguyen Tu 2:00pm - 2:50pm	Seats (Total: 10) LEF 0135

HESP733 **Hearing Aids II Lab**

Prerequisite: HESP700, HESP700B. Corequisite: HESP701.

Laboratory experience covering clinical procedures addressed in concurrent academic course, Hearing Aids 2 (HESP701). This laboratory is 1-credit and graded separately from HESP 701. Students will be given the opportunity for hands-on practice in the use of amplification devices for the treatment of hearing impairment. As the second lab in the course series, students will be able to perform the assessment, selection, fitting, verification, validation, adjustment, modification, counselling, and troubleshooting activities required for amplification-based aural (re)habilitation independently.

3501	Sarah Sohns W 4:30pm - 5:30pm	Seats (Total: 15) LEF 1222

HESP788 **Graduate Research Externship**

Off-campus research internship with departmental affiliates at National Institutes of Health and other regional universities. Contact department chairman for available placements, requirements and openings.

Contact department for information to register for this course.

HESP799 **Master's Thesis Research**

Contact department for information to register for this course.

HESP829 **Clinical Internship Residency**

Off-Campus, full-time (30-40 hours/week) clinical externship in Audiology at regional and national institutions.

1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 20)

HESP849 **Capstone Research Project I**

First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.

Contact department for information to register for this course.

HESP859 **Capstone Research Project II**

Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.

Contact department for information to register for this course.

HESP898 **Pre-Candidacy Research**

Contact department for information to register for this course.

HESP899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HGLO Honors Global Communities Spring 2024

HGLO298 **Independent Experiential Learning**

This course guides HGLO students in undertaking substantive, academically rigorous research and/or experiential learning in close collaboration with a faculty mentor.

Restriction: Must be enrolled in Honors Global Communities Living-Learning Program. Repeatable to 6 credits if content differs.

0101	Tristan Hightower Class time/details on ELMs	Seats (Total: 30) ONLINE

HHUM Honors Humanities Spring 2024

HHUM106 **Honors Humanities: The Humanities in Practice**

Recommended: HHUM105. Restriction: Must be in the Honors Humanities Program. Additional information: Priority enrollment will be given to students in Honors Humanities.

The application of the disciplines, methods and traditions of the Humanities to contemporary problems and issues such as social injustice, immigration, income inequality, and the role of social media. Students will apply to such issues the tools of the Humanities: research and historical analysis, critical reasoning, communication and persuasion, ethical debate, and imagination. The course will utilize the institutions of Washington, D.C. to explore contemporary problems and will guide students in the creation of their individual proposals for the capstone project that is the culmination of the curriculum in Honors Humanities.

0101	Sarah Humud Tu 3:30pm - 4:45pm Th 11:00am - 12:15pm	Seats (Total: 15) ESJ 0215 ANA 0120	 Discussion
0102	Sarah Humud Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 15) ESJ 0215 ANA 0120	 Discussion
0103	Sarah Humud Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 15) ESJ 0215 ANA 0120	 Discussion
0104	Sarah Humud Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 15) ESJ 0215 ANA 0120	 Discussion

HHUM206 **Honors Humanities Keystone Project**

Design, execution and completion of students' chosen Keystone Projects in the form of research, creativity, or service. Students will have formulated tentative plans for their projects in HHUM106; in this course they will revise and augment those proposals, articulate their connections with the traditions and methods of the humanities, formulate a work plan for completing the project within one semester, and work with their fellow students to workshop their materials as they develop. The course will culminate in a presentation of the project at the annual Keystone Symposium and with the submission of the project in its final form.

0101	Sarah Humud, Randy Ontiveros Th 3:30pm - 4:45pm Tu 3:30pm - 4:45pm	Seats (Total: 15) ESJ 0215 ANA 0120	 Discussion

0102	Randy Ontiveros, Sarah Humud Th 3:30pm - 4:45pm Tu 11:00am - 12:15pm	Seats (Total: 15)	ESJ 0215 ANA 0120	Discussion
0103	Randy Ontiveros, Sarah Humud Th 3:30pm - 4:45pm Tu 12:30pm - 1:45pm	Seats (Total: 15)	ESJ 0215 ANA 0120	Discussion
0104	Randy Ontiveros, Sarah Humud Th 3:30pm - 4:45pm Tu 2:00pm - 3:15pm	Seats (Total: 15)	ESJ 0215 ANA 0120	Discussion

HHUM328 **Internship in Honors Humanities**

Supervised service-learning in Honors Humanities.

0101	Sarah Humud Contact instructor or department for details.	Seats (Total: 20)	

HHUM329 **Undergraduate Teaching Assistantship**

Supervised pedagogical service-learning in the Honors Humanities curriculum.

0101	Sarah Humud Contact instructor or department for details.	Seats (Total: 5)	

HISP Historic Preservation Spring 2024

HISP200 **The Everyday and the American Environment**

Jointly offered with HISP615.

An introduction to the theories of the everyday within the context of the American built environment. Focuses primarily on the American experience of underrepresented, minority, and/or immigrant communities; both historical and contemporary. Attempts to challenge what is meant by American in describing the American everyday built environment.

0101	John Sprinkle Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 19)	ASY 2309 EDU 2102	Discussion
0102	John Sprinkle Tu 3:30pm - 4:45pm Th 12:30pm - 1:45pm	Seats (Total: 24)	ASY 2309 SQH 1121	Discussion

0103	John Sprinkle Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 24) ASY 2309 TWS 0223	Discussion
0104	John Sprinkle Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 24) ASY 2309 ASY 1213	Discussion
0105	John Sprinkle Tu 3:30pm - 4:45pm Th 2:00pm - 3:15pm	Seats (Total: 19) ASY 2309 WDS 1131	Discussion

HISP619O **Special Topics in Historic Preservation; Three-Dimensional Digital Documentation: Using Laser-based Measurement Systems**

(Perm req)

Technical aspects of preservation taught by practitioners whose expertise are of special benefit to certificate students.

Cross-listed with ARCH478O, ARCH678O, ANTH448R, and ANTH632. Credit only granted for: ARCH478O, ARCH678O, ANTH448R, ANTH632 or HISP619O. This course focuses on the fundamentals of documenting components of the built environment and the landscapes in which they are located. It focuses on the use of lasers to calculate 3-D measurements at various scales, from objects, to buildings, and landscapes. It will cover data management and archiving, field documentation processes, and post-processing of scan point clouds. This includes the production of deliverables for clients or project partners, such as plans, elevations, orthoimagery, and cleaned exported point clouds in formats that are compatible with Autodesk software and other CAD or rendering software platforms. This course is intended for students working in fields that rely on accurately documenting components of the built environment in three dimension, including architects, engineers, preservationists, archaeologists, or digital designers.

0101	Stefan Woehlke W 2:00pm - 4:40pm	Seats (Total: 5) ARC 1115	

HISP629 **Independent Studies in Historic Preservation**

(Perm req)

Individual Instruction course.

0101	Stefan Woehlke Contact instructor or department for details.	Seats (Total: 5)	
0102	John Sprinkle Contact instructor or department for details.	Seats (Total: 1)	

HISP630 **Preservation Policy and Planning**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619M or HISP630. Formerly: HISP619M.

An opportunity is provided to look in depth at the national historic preservation program that is the federal, tribal, state, and local (city and county) public sector preservation activities being undertaken in accordance with public policy set by laws, regulations, standards, and guidelines.

0101	Rhonda Sincavage W 7:00pm - 9:40pm	Seats (Total: 15) ARC 1117

HISP635 **Social and Ethnic Issues in Historic Preservation Practice**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP628E or HISP635. Formerly: HISP628E.

This seminar course examines the broader social and ethnic dimensions of historic preservation practice that have impacted the field since the "culture wars" of the 1990's. Through weekly case studies of local, international sites, students will explore these issues and apply newly emerging methodologies to their final case study project.

0101	Michelle Magalong W 4:00pm - 6:40pm	Seats (Total: 10) ARC 1117

HISP640 **Historic Preservation Law, Advocacy and Public Policy**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619C or HISP640. Formerly: HISP619C.

Introduce students to legal, advocacy, and public policy issues in the field of historic preservation. Student activities will be designed to teach basic working knowledge of relevant legal subjects, including historic preservation ordinances, state and federal preservation statutes, and important constitutional issues.

0101	Frederick Stachura M 7:00pm - 9:40pm	Seats (Total: 15) ARC 1117

HISP660 **Internship in Historic Preservation**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Formerly: HISP619.

Students will secure a summer internship with an organization engaged in historic preservation work (this can be a public agency, nonprofit, or private firm). The students will formulate a plan of work and a series of pedagogical goals to satisfy both the practical needs of the project and the academic requirements for the course.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)

HISP670 **Conservation of Historic Places: Historic Materials, Building Systems, and Conservation**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619T or HISP670. Formerly: HISP619T.

Introduces students to the analysis of historic buildings, building systems and materials. The overall emphasis is on assessing the condition of a building and its parts, and formulating a preservation strategy based on it. Conservation methods will be discussed through the introduction of philosophies and specific techniques.

0101	Alfonso Narvaez Tu 7:00pm - 9:40pm	Seats (Total: 15) ARC 1117

HISP690 **Historic Preservation Professional Practice**

(Perm req)

Restriction: Permission of instructor.

Students explore management and practice issues in the historic preservation field. Topics include: project management, budgeting, personnel, and grantsmanship. Each topic will be considered in the three main areas of practice - government agencies, non-profits, and for profit companies. Outside speakers from these various practice environments will present on their area of specialization.

0101	John Sprinkle M 4:00pm - 6:00pm	Seats (Total: 15) ARC 1117

HISP701 **Certificate Portfolio Project**

(Perm req)

Prerequisite: Permission of ARCH-Historic Preservation Program.

Students will gather samples of their work and craft a synthetic statement on their experiences in their HISP certificate courses (for example, picking up on themes such as community involvement, diversity of practice, affordable housing, or sustainability), and the ways in which they have integrated historic preservation into their thinking and practice in their home discipline.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

HISP710 **Final Project in Historic Preservation I**

(Perm req)

Credit only granted for: HISP700 or HISP710. Formerly: HISP700.

An independent, applied research project investigating the preservation of a particular site or a specialized issue in historic preservation. This is part one of a two-semester sequence and involves developing the project proposal and bibliography.

0101	Susan Kern	Seats (Total: 15)
	Contact instructor or department for details.	

HISP711 **Final Project in Historic Preservation II**

(Perm req)

Credit only granted for: HISP700 or HISP711. Formerly: HISP700.

An independent, applied research project invesitgating the preservation of a particular site or a specialized issue in historic preservation. This is part two of a two semester sequence and involves project research and writing.

0101	Susan Kern	Seats (Total: 15)
	Contact instructor or department for details.	

HIST History Spring 2024

HIST108A **Freshman/Sophomore Seminar in History; Incarceration Nation**

Seminar for freshmen and sophomores on a specific historical case study and historical "problem," taught by a professor who specializes in the field. Participants will learn about the subject by doing the work of historians: carefully considering primary and secondary sources, discussing them in a seminar format, and preparing original written work drawn upon these materials. Seminar topics will range widely and the offerings will vary each semester; these are "special topics" courses.

America leads the world in jailing its own citizens and there are now more than two million Americans behind bars. How did it come to this? This course examines America s long history of incarceration, with a particular focus on the period from the Revolution to the Civil War.

0101	Richard Bell	Seats (Total: 20)
	MW 2:00pm - 3:15pm	KEY 0117

HIST108D **Freshman/Sophomore Seminar in History; A History of Drugs from Ayahuasca to Zantac**

Seminar for freshmen and sophomores on a specific historical case study and historical "problem," taught by a professor who specializes in the field. Participants will learn about the subject by doing the work of historians: carefully considering primary and secondary sources, discussing them in a seminar format, and preparing original written work drawn upon these materials. Seminar topics will range widely and the offerings will vary each semester; these are "special topics" courses.

The term "drug" has meant many things over its long history, ranging from a remedy to a banned substance. In this seminar we'll explore the term's history/and see how it has changed over time. Topics include global trade, cultural appropriation, healthcare. politics, law, technology, and big pharma.

0101	Zachary Dorner TuTh 12:30pm - 1:45pm	Seats (Total: 20) TLF 2108	

HIST110 **The Ancient World**

Interpretation of select literature and art of the ancient Mediterranean world with a view to illuminating the antecedents of modern culture; religion and myth in the ancient Near East; Greek philosophical, scientific, and literary invention; and the Roman tradition in politics and administration.

0101	Elizabeth Conner MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 23) SHM 2102 TLF 1103	 Discussion
0102	Elizabeth Conner MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 23) SHM 2102 TLF 1103	 Discussion
0103	Elizabeth Conner MW 10:00am - 10:50am M 2:00pm - 2:50pm	Seats (Total: 23) SHM 2102 TLF 1103	 Discussion

HIST111 **The Medieval World**

The development of Europe in the Middle Ages; the role of religious values in shaping new social, economic, and political institutions; medieval literature, art and architecture.

0101	Christopher Halsted MW 9:00am - 9:50am W 1:00pm - 1:50pm	Seats (Total: 23) SHM 2102 TLF 1103	 Discussion
0102	Christopher Halsted MW 9:00am - 9:50am W 10:00am - 10:50am	Seats (Total: 23) SHM 2102 TLF 1103	 Discussion

0103	Christopher Halsted MW 9:00am - 9:50am W 12:00pm - 12:50pm	Seats (Total: 23) SHM 2102 TLF 1103	Discussion
0104	Christopher Halsted MW 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 23) SHM 2102 TLF 1101	Discussion
0105	Christopher Halsted MW 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 23) SHM 2102 TLF 1101	Discussion
0106	Christopher Halsted MW 9:00am - 9:50am F 2:00pm - 2:50pm	Seats (Total: 23) SHM 2102 TLF 1101	Discussion

HIST113 **The Making of Modern Europe**

Evolution of modern nation states since late medieval times. Industrial-economic structure and demography. Emergence of modern secular society.

0101	Stefano Villani TuTh 12:30pm - 1:45pm	Seats (Total: 40) KEY 0103	

HIST131 **The History of the American Dream**

Credit only granted for: HIST131 or HIST289J. Formerly: HIST289J.

An introduction to the way Americans thought of themselves in the past, and their often conflicting visions of what constituted the American Dream. Central questions will include whether or not Americans have always envisioned their country as a land of equality, opportunity, democracy, and freedom and whether or not their ideas of what these values meant changed or remained the same over time.

0101	Michael Ross TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 23) TMH 0301 TLF 2103	Discussion
0102	Michael Ross TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 23) TMH 0301 TLF 2103	Discussion
0103	Michael Ross TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 23) TMH 0301 TLF 2103	Discussion

0104	Michael Ross TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 23) TMH 0301 TLF 2103	Discussion
0105	Michael Ross TuTh 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 23) TMH 0301 TLF 2103	Discussion
0106	Michael Ross TuTh 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 23) TMH 0301 TLF 2103	Discussion

HIST200 **Interpreting American History: Beginnings to 1877**

Credit only granted for: HIST156 or HIST200. Formerly: HIST156.

The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

0101	Howard Smead TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 23) TWS 1100 KEY 0100	Discussion
0102	Howard Smead TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 23) TWS 1100 KEY 0100	Discussion
0103	Howard Smead TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 1100 KEY 0100	Discussion

HIST201 **Interpreting American History: From 1865 to the Present**

Credit only granted for: HIST157 or HIST201. Formerly: HIST157.

The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

0101	Howard Smead MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0102	Howard Smead MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion

0103	Howard Smead MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0104	Howard Smead MW 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0105	Howard Smead MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0106	Howard Smead MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0107	Howard Smead MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0108	Howard Smead MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0109	Howard Smead MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0201	Robert Chiles TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 23) ESJ 1224 ONLINE	Discussion
0202	Robert Chiles TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 23) ESJ 1224 ONLINE	Discussion
0203	Robert Chiles TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 23) ESJ 1224 ONLINE	Discussion

0204	Robert Chiles TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 23) ESJ 1224 TLF 2103	Discussion
0205	Robert Chiles TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 23) ESJ 1224 TLF 2103	Discussion
0206	Robert Chiles TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 23) ESJ 1224 TLF 2103	Discussion
0301	David Freund MW 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 23) TWS 1100 KEY 0100	Discussion
0302	David Freund MW 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 23) TWS 1100 KEY 0100	Discussion
0303	David Freund MW 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 23) TWS 1100 KEY 0100	Discussion
0304	David Freund MW 2:00pm - 2:50pm W 4:00pm - 4:50pm	Seats (Total: 23) TWS 1100 TLF 1103	Discussion

HIST205 **Environmental History**

An exploration of the way different societies have used, imagined, and managed nature. Includes examination of questions of land use, pollution, conservation, and the ideology of nature, especially but not exclusively in Europe and North America.

0101	Douglas McRae TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 23) TWS 0310 KEY 0100	Discussion
0102	Douglas McRae TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 23) TWS 0310 KEY 0100	Discussion

0103	Douglas McRae TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 23) TWS 0310 KEY 0100	Discussion

HIST208B **Historical Research and Methods Seminar; Constructing, Imagining, and Narrating Pre-Modern Cities**

(Perm req)

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

Restriction: Permission of department.

0101	Kader Smail MW 11:00am - 12:15pm	Seats (Total: 12) TLF 2103
0201	Kader Smail MW 2:00pm - 3:15pm	Seats (Total: 12) TLF 2100

HIST208C **Historical Research and Methods Seminar; Duck and Cover, Detante, and Decolonization: The Global Cold War, 1945-1991**

(Perm req)

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

Restriction: Permission of department.

0101	Nicholas Misukanis TuTh 9:30am - 10:45am	Seats (Total: 12) TLF 2100
0201	Nicholas Misukanis TuTh 12:30pm - 1:45pm	Seats (Total: 12) TLF 2100

HIST208D **Historical Research and Methods Seminar; Beyond Rosie and Just as Riveting: Women and War in American History**

(Perm req)

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

Restriction: Permission of department.

0101	Lauren Cain TuTh 11:00am - 12:15pm	Seats (Total: 12) TLF 2100
0201	Lauren Cain TuTh 2:00pm - 3:15pm	Seats (Total: 12) TLF 2100

HIST211 **Women in America Since 1880**

Cross-listed with: WGSS211. Credit only granted for: HIST211, WMST211 or WGSS211. Formerly: WMST211.

An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

0101	Katarina Keane MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 23) TWS 1100 TLF 2108	 Discussion
0102	Katarina Keane MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 23) TWS 1100 TLF 2108	 Discussion
0103	Katarina Keane MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 1100 TLF 2108	 Discussion

HIST219I **Religions of the Ancient Near East**

Cross-listed with: RELS225, JWST225. Credit only granted for: JWST225, HIST219I, RELS225, or RELS219A. Formerly: RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

Cross-listed with JWST225 and RELS219A. Credit only granted for JWST225, RELS219A and HIST219I.

0101	Matthew Suriano TuTh 11:00am - 12:15pm	Seats (Total: 25) HBK 0105	

HIST219X **Modern Iran**

Cross-listed with: PERS251. Credit only granted for: PERS251 or HIST219X.

General sociopolitical introduction to modern Iran from establishment of the Qajar dynasty in the late 18th century to the present day. Taught in English.

0101	Marjan Moosavi TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 0125	

HIST221 **Asian American History**

Cross-listed with: AAST201. Credit only granted for: AAST201 or HIST221.

Introduction to the history of Asian Americans and Asians in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans in World War II, the Cold War, and the issues in the civil rights & post-civil rights era.

0101	Madeline Hsu TuTh 9:30am - 10:45am	Seats (Total: 40) KEY 0103	

HIST222 **Immigration and Ethnicity in America**

Credit only granted for: AAST222, HIST222, or SOCY222.

The history of immigration and the development of diverse populations i the United States are examined. Topics include related political controversies, the social experiences of immigrants, ethnicity, generations, migration, inter-group relations, race, and diversity in American culture.

0101	Robert Chiles TuTh 3:30pm - 4:45pm	Seats (Total: 40) KEY 0116	

HIST223 **Globalizing the American Revolution**

Cross-listed with: HNUH218C. Credit only granted for: HNUH218C or HIST223.

How is the American Revolution a creation story in the making of our multi-cultural and interconnected modern world? Consider the Declaration of Independence. When first published on July 5, 1776, it was printed by an immigrant Irishman on Dutch paper that had been brought over from England. This was the first such declaration of independence ever issued, but its ideas and forms traveled far and wide. More than 100 other declarations of independence have been issued since then. The people that declaration mobilized are similarly diverse: the American Revolution is as much the story of Creek farmers, Spanish soldiers, French slaves, Canadian fugitives, Indian tea-growers, and African statesmen as it is of the Minutemen and Sons of Liberty. In this globe-trotting class, students will be positioned to debate how the familiar story of the American Revolution changes when we place it in transnational context.

0101	Richard Bell MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) TWS 0310 TLF 1103	Discussion
0102	Richard Bell MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 23) TWS 0310 TLF 1103	Discussion
0103	Richard Bell MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 23) TWS 0310 TLF 1103	Discussion

HIST225 **Modern Military History, 1815-Present**

The military history of Europe through an examination of the economic, financial, strategic, tactical, and technological aspects of the development of military institutions and warfare from the Congress of Vienna in 1815 to the present.

0101	Patrick Chung	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	SQH 1101

HIST231 **London and the British Empire**

Cross-listed with: HONR231. Credit only granted for: HIST219K, HONR249B, HONR231, or HIST231. Formerly: HIST219K.

Focuses on the people, places, and policies that shaped the development of the British Empire, the single largest trans-cultural phenomenon in the world since 1500. Students examine how ideology, migration, technology and resistance shaped the expansion and eventual retrenchment of British imperial power in the Atlantic world and the Indian sub-continent. With the nation's capital as our classroom, students explore the complex workings and legacies of the British Empire from the perspective of its nerve center. The curriculum illuminates the experience of empire for subjects both in the colonies and the metropole and will pay particular attention to the maritime origins of empire, the lives of black Britons and the abolition of slavery, and the rise and fall of the British in India.

Contact department for information to register for this course.

HIST233 **Empire! The British Imperial Experience 1558-1997**

Credit only granted for: HIST219P or HIST233. Formerly: HIST219P.

Britain's empire from the mid-sixteenth century to the late twentieth century, focusing on the encounter between Britain and indigenous peoples. Topics include the origins of British imperialism in Ireland and North America, the slave trade, the East India Company and India, women in empire, transportation and the making of Australia, sex in empire, missionaries, racial theories, and decolonization.

0101	Anne Rush	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0103

HIST235 **Divorced, Beheaded, Deposed: England and Britain 1485-1689**

British history from the War of the Roses to the Hanoverian succession; Yorkist and Tudor society and politics; the Renaissance and Reformation in England, Henry VIII through Elizabeth I; 17th-century crises and revolutions; intellectual and cultural changes; the beginnings of empire; the achievement of political and intellectual order.

0101	Sabrina Baron	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0103

HIST245 **Reformers, Radicals, and Revolutionaries: The Middle East in the Twentieth Century**

Cross-listed with: RELS219K. Credit only granted for: RELS219K or HIST245.

The 20th century was a period of dramatic changes in the Middle East. Within the global context of the two World Wars and the Cold War, countries in the region struggled with the effects of colonialism and painful processes of decolonization. The course offers a thematic-comparative approach to issues such as social and political reform, nationalism, the colonial experience, independence struggles, models of governance, political violence, and Islamism. Course lectures and the analysis and discussion of primary sources will lead students to understand that the peoples of the Middle East found answers to the challenges posed by Western dominance based on their specific historical, cultural and socio-economic circumstances.

0101	Peter Wien TuTh 11:00am - 12:15pm	Seats (Total: 40) KEY 0116

HIST251 **Latin America Since Independence**

Cross-listed with: LACS251. Credit only granted for: HIST251, LASC251, or LACS251. Formerly: HIST251 or LASC251.

Introductory survey of the history of Latin America from the era of independence (c. 1810-1825) through the early 1980s. Major themes include independence and sovereignty, postcolonialism and neocolonialism, nation- and state-building, liberalism, citizenship, economic development and modernization, social organization and stratification, race and ethnicity, gender relations, identity politics, reform and revolution, authoritarianism and democratization, and inter-American relations.

Cross-listed with LASC251. Credit granted for HIST251 or LASC251.

0101	Karin Rosemblatt MW 2:00pm - 3:15pm	Seats (Total: 40) KEY 0103

HIST255 **African-American History, 1865 - Present**

Cross-listed with: AASP255. Credit only granted for: HIST255, AASP255 or AASP298A.

An introductory course in the African-American experience in the United States from 1865 to the present. Topics include the aftermath of the Civil War on US race relations, the rise of segregation, northern migration, World War I and II, Civil Rights Movements, and the Black Power Movement.

0101	Terry Scott TuTh 11:00am - 12:15pm	Seats (Total: 40) CHM 1228

HIST269D **Special Topics in Study Abroad II; Barcelona: The City and Its History**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269K **Special Topics in Study Abroad II; Mediterranean Culture and History**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269M **Special Topics in Study Abroad II; History of Modern Italy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269Y **Special Topics in Study Abroad II; Rome Republic & Empire**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST285 **East Asian Civilization II**

A survey of the historical development of modern Asia since 1700. Primarily concerned with the efforts of East Asians to preserve their traditional cultures in the face of Western expansion in the 18th and 19th centuries, and their attempts to survive as nations in the 20th century.

0101	Yujie Li	Seats (Total: 40)	
	TuTh 12:30pm - 1:45pm	KEY 0116	

HIST287 **Why the Jews? Historical and Cultural Investigations**

Restriction: Must not have completed HIST282, HIST283, JWST234, or JWST235. Cross-listed with JWST233. Credit only granted for: HIST287 or JWST233.

Examines the history and culture of the Jews from the thirteenth century BCE/BC to the present through an examination of significant themes or problems (such as "religion" or "diaspora") that shape our understanding of the Jewish people. A primary focus in the course will be on texts, artifacts, and other cultural products by Jews and others that illustrate the history of the Jews help understand their cultural heritage.

0101	Hayim Lapin	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	HBK 0105	

HIST289A **Jews, Christians, and Muslims in Medieval Spain: Tolerance, Oppression, and the Problematic Past**

Cross-listed with: RELS289C. Credit only granted for: HIST289A or RELS289C.

For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

0101	Janna Bianchini	Seats (Total: 23)	
	MW 11:00am - 11:50am	SYM 0200	
	W 10:00am - 10:50am	SYM 0209	Discussion

0102	Janna Bianchini MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 23) SYM 0200 ASY 3217	Discussion
0103	Janna Bianchini MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 23) SYM 0200 ASY 3217	Discussion

HIST289N **The Politics of Sexuality in America: A Historical Approach**

Cross-listed with: WGSS298N. Credit only granted for: HIST289N or WGSS298N.

Why do particular issues about sexuality hold such an important place in American political debates? What animates these controversies and what can a historical perspective on these issues add to our understanding of modern sexual politics? This class explores the historical sexual politics that undergird contemporary debates concerning sexuality in America. It focuses on topics that garner significant public attention - Reproductive rights - LGBTQ rights - Sexting - and explores the histories that undergird Americans disagreements.

0101	Clare Lyons MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 23) ESJ 0215 TLF 2108	Discussion
0102	Clare Lyons MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0215 TLF 2108	Discussion
0103	Clare Lyons MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 23) ESJ 0215 TLF 2108	Discussion

HIST289V **What Does It Mean to be An American?**

This course seeks to understand the on-going crisis over national identity and purpose by examining the many factors that go into the big stew known as America.

0101	Howard Smead MW 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 23) SYM 0200 KEY 0100	Discussion
0102	Howard Smead MW 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 23) SYM 0200 KEY 0100	Discussion

0103	Howard Smead	Seats (Total: 23)	
	MW 2:00pm - 2:50pm	SYM 0200	
	Tu 12:30pm - 1:20pm	KEY 0100	Discussion

HIST291 **Jewish Texts and Cultures of the Second Temple Period**

Cross-listed with: JWST231. Credit only granted for: HIST291 or JWST231.

An introduction to the literature, history, and culture of Jews in the period between the sixth century BCE and the second century CE. Special topics may include the rise of the formation of the biblical canon, scriptural interpretation, sectarian and revolutionary movements, and growth of the diaspora.

0101	Hayim Lapin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 2109

HIST299 **Directed Research**

(Perm req)

Closely guided research in primary sources for students currently enrolled in selected 100- or 200-level surveys in the Department of History.

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST307 **The Holocaust of European Jewry**

Cross-listed with: JWST345. Credit only granted for: HIST307 or JWST345.

Roots of Nazi Jewish policy in the 1930's and during World War II: the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

Contact department for information to register for this course.

HIST319P **Special Topics in History; Ukraine and Russia: Parallel Histories, Clashing Identities**

Previously offered as HIST429W. Credit only for HIST319P or HIST429W. The course addresses various interactions encounters as well as divergences between the processes of Ukrainian and Russian national identity and state formation, in a broader context of East European and Slavic history, from the Middle Ages up to Russia s aggression against Ukraine in 2022.

0101	Mikhail Dolbilov	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0126

HIST319Z **Special Topics in History; State and Society in Modern China: Opium War to the Present**

A survey in the change of state-society relation in China as the country transformed from empire, to Republic, then to People's Republic.

0101	Yujie Li	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	KEY 0126

HIST320 **Early Christianity: Jesus to Constantine**

Cross-listed with: JWST331. Credit only granted for: HIST320 or JWST331.

Social and religious history of early Christianity from its origin in the first century to the reign of Constantine.

Cross-listed with JWST331. Credit granted for HIST320 or JWST331.

0101	Elizabeth Conner	Seats (Total: 40)
	MW 2:00pm - 3:15pm	SQH 1119

HIST321 **Biblical History and Culture**

Cross-listed with: JWST324. Credit only granted for: HIST321, or JWST324.

Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

0101	Matthew Suriano	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ARC 1103

HIST328G **Selected Topics in History; Heretics, Withches, and Slaves: Marginalized Communities in the Middle Ages**

Discover medieval people whose religious beliefs, sexuality, disability, or enslavement led to their exclusion--both from their own communities and from histories written about them today--and explore why and how societies choose whom to persecute.

0101	Janna Bianchini	Seats (Total: 30)
	MW 2:00pm - 3:15pm	KEY 0100

HIST328K **Selected Topics in History; Borders and Memory-making in Times of War: A Global Classroom connecting College Park and Kyiv**

Russia's full-scale invasion of Ukraine has shone a spotlight on the need for evidence-based, critical discussion of borders and memory-making, grounded in History but speaking to a wider global public. This course will use the historian's toolkit to examine borders and memory-making at war through a global lens. Bringing together undergrads from College Park & from Kyiv, Ukraine, this Global Classroom will both compare & connect different stories across time and space, from the Polish-Ukrainian borderlands, to the US-Mexico border, to Korea, to Rwanda and Uganda. Content delivery will combine once-a-week online, real-time mini-lectures with small-group projects & meetings. These will facilitate collaborative partnerships between US & Ukrainian students.

0101	Piotr H Kosicki	Seats (Total: 20)
	Th 11:00am - 12:15pm	ONLINE
	Class time/details on ELMs	ONLINE

HIST328W **Women in Classical Antiquity**

Cross-listed with: CLAS320, WGSS320. Credit only granted for: CLAS320, WMST320, WGSS320 or HIST328W.

A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal, and artistic evidence; special emphasis in women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

0101	Chiara Graf	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	ESJ B0320

HIST328Y **Selected Topics in History; Cities in Flux: Urban Environmental Histories of Water**

Everyday, massive volumes of water move in and out of the worlds cities. The way water moves in urban spaces, however, is more than a technical question: it is a historical problem that cities have confronted for centuries. In this class, we'll take a look at how water has shaped cities over time, and how increasing urbanization has shaped humanity s relationship to water, creating the hybrid waterscapes that undergird cities and occasionally undermine them.

0101	Douglas McRae	Seats (Total: 30)
	TuTh 9:30am - 10:45am	WDS 1114

HIST328Z **Selected Topics in History; Chocolate Cities: Urban America and the Black Experience**

Cross-listed with AASP478G. Credit only granted for HIST328Z or AASP478G. As early as the colonial area, cities have included significant numbers of people of African descent within their borders. By the twentieth century, war and mass migration had transformed African Americans into a predominantly urban people. This course examines a variety of urban areas in the United States, delineating how the opportunities and obstacles ofthese spaces have shaped African American life and culture from the colonial era to the present.

0101	Dennis Doster	Seats (Total: 25)
	Tu 5:00pm - 6:15pm	ONLINE
	Th 5:00pm - 6:15pm	TLF 1101

HIST329M **Special Topics in History; From Damascus to Cordoba: The First Dynasty of Islam East and West**

Cross-listed with RELS429M. Credit only granted for HIST329M or RELS429M. A global history of the first dynasty of Islam, from their Arabian origins to Syria and Iberia, with a focus on how the Umayyads wanted to memorialize themselves while questioning the construction of historical narratives in medieval Islam.

0101	Antoine Borrut	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1103

HIST329Q **Special Topics in History; Jews and Sports: Identities, Nationalisms, and Masculinities**

Cross-listed with JWST319A. Credit only granted for JWST319A or HIST329Q. Modern Jewish culture is marked by competing visions of Jewish masculinity, from the traditional learned scholar to the muscle Jew of the 19th century. Athleticism plays an important role in this cultural formation. Attention to Jewish engagement in and with sports including boxing, baseball, basketball, and soccer allows for a better understanding of modern Jewish identity and its development and challenges.

0101	Daniel Richter	Seats (Total: 35)
	M 3:30pm - 6:00pm	JMZ 2206

HIST333 **The European Reformations**

Cross-listed with: RELS343. Credit only granted for: HIST333 or RELS343.

Examination of developments in European religion between 1450 and 1700; the late-medieval Church and its critics; rise of Protestant thought in Germany and its spread throughout Europe; reform efforts in the Catholic Church; religious wars and violence and their impact on state and society; consequences of religious reform in society and its impact on the family and women.

0101	Philip Soergel	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TLF 1101

HIST339J **Ancient Slavery and its American Impacts**

Cross-listed with: CLAS340. Credit only granted for: CLAS340 or HIST339J.

Interrogates how slavery permeated the ancient Mediterranean societies of Greece and Rome. We will pay particular attention to how hierarchical inequalities are institutionalized, experienced, and represented and to how different marginalized and dominant groups interacted. Enslaved persons performed necessary labor in Greece and Rome and their work was essential for the formation of ancient society in agriculture, mining, domestic spaces, literature, finance, and government. Studying ancient slavery offers a chance to examine Greece and Rome from the bottom up, parsing the scant literary and material evidence for the lives and struggles of enslaved persons. We will practice several different approaches in order to tease out the systematic, economic, political, and personal effects of slavery in the ancient world. The United States of America was also founded as a slave society, and discussions of slavery in the Americas often look back to the ancient Mediterranean. The course will therefore conclude with a unit on how enslavers and abolitionists in the United States utilized and responded to slavery in antiquity.

0101	Katherine Wasdin	Seats (Total: 35)
	MW 10:00am - 11:15am	SKN 1115

HIST339L **Special Topics in History; Minorities, Minoritization, and Sectarianism in the Modern Middle East**

Thematic exploration of a topic in history.

Minorities and Sectarianism are two categories that are commonly used in contemporary political and social analysis of the Modern Middle East. The course will look at the historical events and processes that have led to the emergence of such social structures that are more often the product of modern politics than markers of essential historical difference. We will analyze the roots of ethnic and religious diversity and their manipulation by colonial and post-colonial governments, and at the politics of self-assertion by minority groups in the Middle East and North Africa during the twentieth and twenty-first centuries.

0101	Peter Wien TuTh 2:00pm - 3:15pm	Seats (Total: 30) KEY 0100

HIST339O **Special Topics in History; Elizabeth I of England and Mary Queen of Scots: Between Propaganda and Myth**

Thematic exploration of a topic in history.

A study of both the propaganda strategies developed during the reigns of Elizabeth I and Mary Stuart in shaping their images and the literary and artistic representations that after their deaths transfigured their vicissitudes in dozens of portraits, poems, dramas, musical operas, novels and movies. We will also seek to investigate the different narrative codes utilized in these fictionalized narratives.

0101	Stefano Villani TuTh 3:30pm - 4:45pm	Seats (Total: 30) TLF 1103

HIST354 **Ante-Bellum America 1815-1861**

Traces how the strong nationalism after the War of 1812 transformed int the sectionalism that led to Civil War. The course concentrates on the controversies over slavery and other issues contributing to North-South antagonism, including Jacksonian democracy, capitalism, racism, immigration, manifest destiny and religious, social, and intellectual movements, each of which produced its own social tendencies and tensions.

0101	Robert Chiles TuTh 2:00pm - 3:15pm	Seats (Total: 40) KEY 0116

HIST356 **Emergence of Modern America, 1900-1945**

The emergence of modern institutions and identities, 1900-1945. These institutions may include corporate enterprises and the welfare state; identities include homosexuality, the New Woman, and the New Negro.

0101	Robert Chiles TuTh 9:30am - 10:45am	Seats (Total: 40) KEY 0116

HIST357 **Recent America: 1945-Present**

American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

0101	Howard Smead	Seats (Total: 40)
	MW 3:30pm - 4:45pm	KEY 0116

HIST376 **History of Modern Israel**

Cross-listed with ISRL342. Credit only granted for: HIST376 or ISRL342.

History of modern Israel since the beginning of the Zionist settlement in 1882. Attention to different interpretations and narratives of Israel's history, including the historical and ideological roots of Zionism, the establishment of the State of Israel, ideological forces, wars, and the triumphs and crises of democracy.

0101	Paul Scham	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	SQH 1117

HIST386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-History department; and junior standing or higher.

The History Department's Internship program. Pre-professional experience in historical research, analysis, and writing in a variety of work settings.

Contact department for information to register for this course.

HIST396 **Honors Colloquium II**

(Perm req)

Prerequisite: Permission of ARHU-History department; or HIST395. Restriction: Must be in History program.

Uses a seminar approach to examine a major problem of historical interpretation across two or more diverse cultures in different periods. Topics vary and include: religion and society, the city in history, gender, slavery and emancipation, and modernization.

0101	Colleen Woods	Seats (Total: 12)
	W 11:00am - 1:30pm	TLF 2100

HIST398 **Honors Thesis I**

Individual research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST399 **Honors Thesis II**

Individualized research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST408B **Senior Seminar; What Does Government Do? The State in American History**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department.

0101	David Freund M 10:00am - 12:30pm	Seats (Total: 12) TLF 2108

HIST408J **Senior Seminar; Gender and Sexuality in Early Modern Europe**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department. Recent years have witnessed an explosion of research on gender and sexuality in early modern Europe (1500-1800). This seminar will explore this challenging historiography and students will write an historiographical essay on a subject of their choosing.

0101	Philip Soergel Tu 2:00pm - 4:30pm	Seats (Total: 12) TLF 2101

HIST408W **Senior Seminar; The Rise and Fall of the Slave South**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department. Capstone readings seminar for history majors. Explores the rise, maturation and ultimate destruction of the slave South by examining its constituent elements--slaves, slaveholders, yeoman farmers, white nonslaveholders, free people of African descent--and the sources of cohesion and conflict among them.

0101	Leslie Rowland W 1:00pm - 3:30pm	Seats (Total: 12) TLF 2108

HIST408Y **Senior Seminar; Jewish Women in Modernity**

(Perm req)

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Restriction: Permission of department. Exploration of the role of Jewish women in the process of Jewish modernin and the impact of modernization on Jewish women in Europe and America e nineteenth and twentieth centuries.

0101	Marsha Rozenblit	Seats (Total: 6)
	Th 2:00pm - 4:30pm	TLF 2101

HIST419A **Special Topics in History; From Neverland to Downton Abbey: History and Popular Culture in 20th Century Britain**

Examines Twentieth Century Britain through the lens of popular culture: both how popular culture reflected and was shaped by larger political and social events, from two world wars to sexual revolution, from Britain's peak of colonial power to its continuing "decline" in the age ofBrexi t. What role does film, TV, music, fashion, and literature play ingiving a voice to working class and youth culture? We'll also incorporate 21st century pop culture (for example, costume dramas like "Downton Abbey" and "Peaky Blinders") to "look back" at this history and how we romanticize the past. How do programs like "The Great British Bake-Off" and Roy alevents from weddings, births, and funerals keep nostalgia for the monarchy alive, while also recognizing the nation's evolution as a multiracial, democratic society? How does British popular culture address notions of identity and what it means to be "British" in the 20th-21st centuries?

0101	Julie Taddeo	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TLF 1103

HIST419C **Special Topics in History; Sex, Gender, and Sexuality in the Islamic World**

Cross-listed with CMLT679D, PERS498M, PERS689M, RELS429B, WGSS498D, and WGSS698D. Credit granted for CMLT679D, HIST419C, PERS498M, PERS689M, RELS429B, WGSS498D, or WGSS698D.

0101	Matthew Miller	Seats (Total: 14)
	Th 12:30pm - 3:15pm	JMZ 1123

HIST419N **Special Topics in History; The Unending War: From the Korean War to the Korean Wave**

Seminar course on the Korean War and its legacies. We examine how the conflict, often dubbed the "forgotten war", sparked enduring changes to the politics, culture, and economies of the United States and the two Koreas.

0101	Patrick Chung	Seats (Total: 10)
	Tu 3:30pm - 6:00pm	TLF 2103

HIST419W **Special Topics in History; The African Side of the Black Diasporic Atlantic: People, Politics, and Faiths**

Cross-listed with AASP468A. Credit only granted for HIST419W or AASP468A. The Black Atlantic- the African diaspora, and development of Atlantic- world Black communities- but with the focus on the African side. How did new Atlantic states and networks develop in Africa alongside the traffic in enslaved? How did the slave trade change Africa? Focuses include Asante, Dahomey, Yorubaland, African Islamic jihads, and abolition.

0101	Paul Landau	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TLF 2108

HIST425 **Imperial Russia**

The rise and fall of the Russian Empire, Peter the Great to the collapse of tsarism in revolution. Emphasis on the evolution of autocracy, social groups, national identities, and cultural change.

0101	Mikhail Dolbilov	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	KEY 0126

HIST428B **Selected Topics in History; Seven Revolutions in Postwar Africa**

The history of radical politics, anticolonial movements, and revolutionary violence in Africa from 1945 to the present.

0101	Paul Landau	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TLF 2108

HIST428I **Selected Topics in History; Contentious Historical Memories in/between Korea and Japan**

History of modern Korea-Japan relations, with a focus on historical memories of the Japanese empire and two catastrophic wars (World War II and the Korean War). Topics include: Korean kamikaze pilots and the Yasukuni Shrine; Japanese colonial settlers in Korea; Hiroshima and Nagasaki and Korean hibakusha (atomic-bomb survivors); comfort women controversies.

0101	Deokhyo Choi	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TLF 1101

HIST428J **Selected Topics in History; Global Revolutions in the Modern Era**

Examines the key social, cultural, political, and economic causes of revolution, and considers how and why modern revolutions migrated across borders, continents, and oceans. Seminar intended for both advanced undergraduate and graduate students.

0101	Piotr H Kosicki	Seats (Total: 12)
	Th 6:00pm - 8:30pm	ONLINE

HIST429B **Special Topics in History; Digital Methods in Historical Research**

Cross-listed with RELS419L. Credit only granted for HIST429B or RELS419L. This course provides introductions and hands-on experience to a variety of digital approaches to historical analysis. Students will be able to plan and execute a basic digital historical project of their own and to identify resources for further development. No prior coding knowledge is necessary.

0101	Hayim Lapin	Seats (Total: 10)
	Th 3:30pm - 6:00pm	TLF 2103

HIST429F **Special Topics in History; Islam in Africa and the African Diaspora**

Cross-listed with AASP498U and ARAB499J. Credit only granted for ARAB499J, AASP498U, or HIST429F. Taught in English.

0101	Rachel Schine	Seats (Total: 30)
	MW 3:30pm - 4:45pm	HJP 2118

HIST429M **Special Topics in History; Constructing the Past in Early Islam**

Cross-listed with RELS419C. Credit only granted for HIST429M or RELS419C. An exploration of historical writing in the medieval Islamic world. How did early Islamic-era scholars define their relationship to the past, torn between memory and oblivion? How did they build narratives about the formative period of Islam that became so influential and long-lasting, determining in a fundamental way the access that all future generations (including us) would have to alternative pasts?

0101	Antoine Borrut	Seats (Total: 10)
	Tu 3:30pm - 6:00pm	TLF 2100

HIST431 **Becoming Great Britain, 1603-1704**

An examination of the political, religious, and social forces in English life, 1603-1714, with special emphasis on Puritanism and the English revolutions.

0101	Sabrina Baron	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1101

HIST455 **Constitutional History of the United States: Since 1865**

American public law and government, with emphasis on the interaction of government, law, and politics, and the relationship between the constitution and social forces and influences, the way in which constitutional principles, rules, ideas, and institutions affect events and are in turn affected by events. Major crises in American government and politics such as Reconstruction,the rise of corporate power, civil liberties during wartime, the New Deal era, the civil disorders of the 1960s.

0101	Michael Ross	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TWS 0205

HIST465 **Oral History of Immigration**

Credit only granted for: HIST428M or HIST465. Formerly: HIST428M.

Uses oral history to explore experiences of migrants to the Washington, D.C. area since the mid-twentieth century in projects based on engagement with local immigrants.

0101	Anne Rush TuTh 2:00pm - 3:15pm	Seats (Total: 20) TLF 1103

HIST469Q **Study Abroad Special Topics IV; History of Spain I: Up to the 20th Century**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST499 **Independent Study**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST601 **History and Contemporary Theory**

An introduction to contemporary theories in philosophy, literary criticism, cultural studies, anthropology, and other fields; and analysis of their usefulness to historians.

0101	Saverio Giovacchini M 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST607 **The Teaching of History in Institutions of Higher Learning**

(Perm req)

For majors only.

0101	Quincy Mills Contact instructor or department for details.	Seats (Total: 15)
0201	Holly Brewer Contact instructor or department for details.	Seats (Total: 6)

HIST608B **General Seminar; American History**

(Perm req)

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

Prerequisite: permission of department.

0101	Saverio Giovacchini	Seats (Total: 12)	
	W 3:30pm - 6:00pm	TLF 2108	

HIST608C **General Seminar; Nationalism and Identity in Europe**

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

0101	Marsha Rozenblit	Seats (Total: 12)	
	W 3:30pm - 6:00pm	TLF 2103	

HIST608K **General Seminar; East Asian History**

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

0101	Ting Zhang	Seats (Total: 12)	
	Th 3:30pm - 6:00pm	TLF 2108	

HIST610 **Introduction to Museum Scholarship**

Cross-listed with: AMST655, ANTH655, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 5:30pm - 7:00pm Class time/details on ELMs	ONLINE ONLINE	 Discussion

HIST619A **Special Topics in History; Independent Study**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619B **Special Topics in History; Independent Study**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619Q **Special Topics in History; The Unending War: From the Korean War to the Korean Wave**

0101	Patrick Chung Tu 3:30pm - 6:00pm	Seats (Total: 10) TLF 2103

HIST619V **Special Topics in History; Readings in U.S. Labor History**

0101	Julie Greene Tu 3:30pm - 6:00pm	Seats (Total: 12) TLF 2108

HIST638F **Special Topics in History; Readings in Colonial America and the Atlantic World**

Special Topics in History.

Offers an overview of recent and canonical works covering a vast Early America and Atlantic World. Topics will include commodities, ecology, medicine, piracy, political economy, sexuality, and slavery.

0101	Zachary Dorner Th 3:30pm - 6:00pm	Seats (Total: 12) TLF 2100

HIST638J **Special Topics in History; Global Revolutions in the Modern Era**

Special Topics in History.

0101	Piotr H Kosicki Th 6:00pm - 8:30pm	Seats (Total: 8) ONLINE

HIST638L **Special Topics in History; Histories of Race in Latin America and the Caribbean**

Special Topics in History.

0101	David Sartorius W 3:30pm - 6:00pm	Seats (Total: 12) TLF 2100

HIST639B **Special Topics in History; Digital Methods in Historical Research**

Special Topics in History.

This course provides introductions and hands-on experience to a variety of digital approaches to historical analysis. Students will be able to plan and execute a basic digital historical project of their own and to identify resources for further development. No prior coding knowledge is necessary.

0101	Hayim Lapin Th 3:30pm - 6:00pm	Seats (Total: 4) TLF 2103

HIST639M **Special Topics in History; Constructing the Past in Early Islam**

Special Topics in History.

0101	Antoine Borrut	Seats (Total: 5)	
	Tu 3:30pm - 6:00pm	TLF 2100	

HIST708 **Directed Independent Reading for Comprehensive Examinations I**

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST709 **Directed Independent Reading for Comprehensive Examinations II**

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

HIST810 **Museum Research Seminar**

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: AMST856, ANTH856, INST786. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

Additional Note: Cross-listed with ANTH856, HIST810, INST728U. For the Spring 2101 semester, Credit only granted for: AMST856, ANTH856, HIST810 OR INST728U.

0101	Jamila Moore-Pewu	Seats (Total: 15)	
	Th 4:00pm - 5:45pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

HIST811 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Paul Jaeger	Seats (Total: 15)
	Contact instructor or department for details.	

HIST819A **Special Topics in History: Independent Research**

(Perm req)

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819B **Special Topics in History: Independent Research**

(Perm req)

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819V **Special Topics in History: Independent Research; U.S. Research Seminar: Atlantic History Before 1865**

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

0101	Holly Brewer	Seats (Total: 12)
	Tu 6:00pm - 8:30pm	TLF 2108

HIST898 **Pre-Candidacy Research**
Contact department for information to register for this course.

HIST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HLSA Health Services Administration Spring 2024

HLSA300 **Introduction to Health Policy and Services**

Prerequisite: Must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: SPHL498P or HLSA300. Formerly: SPHL498P.

A multidimensional view of public health policy and services. Through interactive discussion of assigned readings, team-based learning, and supplementary lecture, students will learn about the nature of and development of policy, public health policy, and financing and delivery of health care services. This course will place a significant emphasis on a team-based learning approach to understanding the health care system and health care reform.

Restricted to College Park students in the Public Health Science major (code: 12140).

0101	Charmaine Scarlett Class time/details on ELMs W 11:00am - 11:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0102	Charmaine Scarlett Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0103	Charmaine Scarlett Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 20) ONLINE SPH 0116B	Discussion
0104	Charmaine Scarlett Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 20) ONLINE SPH 0116B	Discussion
0105	Charmaine Scarlett Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0106	Charmaine Scarlett Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0107	Charmaine Scarlett Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0108	Charmaine Scarlett Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) ONLINE SPH 0116A	Discussion
0109	Charmaine Scarlett Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) ONLINE SPH 0116A	Discussion

HLSA465 **Redesigning Mental Health Services**

Prerequisite: HLTH366. Recommended: EPIB301.

Students will use Design Thinking to create, reshape, redesign and transform the ways in which mental health and wellness is perceived and addressed on the campus. This course will incorporate students and the UMD community as stakeholders in designing, planning and contributing to developing solutions that leverage existing mental health resources or create new pathways to improve mental health and wellness at UMD. Students will learn and use design thinking skills to enhance public health practice skills in project proposals and grant writing.

0101	Joshua Winer	Seats (Total: 20)
	Tu 4:00pm - 6:30pm	SPH 1301

HLSA484 **Redesigning Health Care: Developing a Clinic to Meet Community Needs**

Restriction: Must have completed a minimum of 60 credits. Additional information: Selected class sessions will be on-site at local organizations such as Mona Clinic in Temple Hills, MD, HAIR Network shops in Hyattsville and the Sarvis Empowerment Cafe in Riverdale. The course also requires off-campus work at nearby locations.

Provides an opportunity for students to learn a key entrepreneurial skill, Human Centered Design Thinking, while helping to build, reshape, redesign and transform delivery of health care in the Mona Center, a new community center and clinic in Prince George's County. This new, modern vision for a health and wellness clinic embraces student involvement in designing, planning and contributing to innovative programs, solutions, and processes to improve the clinic's ability to meet community and patient needs by addressing the social determinants of health as well as traditional clinical health status. Students in the class will develop empathy for patients, providers and other stakeholders, define problems, select a specific problem for intervention, understand problems based on stakeholder input, ideate, reframe and suggest options to solve or address the problem, prototype solutions, test ideas, and make recommendations to inform implementation and ongoing measurement and monitoring of impact.

0101	Stephen Thomas	Seats (Total: 25)
	F 9:00am - 11:30am	SPH 0305
	Class time/details on ELMs	ONLINE

HLSA688 **Independent Study**

(Perm req)

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

HLSA702 **Policy and Politics of Health**

Organizational and financial components of the U.S. health care system, including social and political forces that bind the system. Advanced political analysis of the health care system, including key issues and problems.

Contact department for information to register for this course.

HLSA709 Graduate Seminar

The purpose of the course is for doctoral students to present their work to fellow doctoral students and faculty in an informal and supportive environment. Faculty and students provide feedback and suggestions that are helpful to the presenting students. Several sessions each semester are for external speakers on interesting research topics.

0101	Aryn Phillips Th 12:00pm - 1:00pm	Seats (Total: 20) Location: TBA

HLSA710 Healthcare Management: Foundations and Principles

Concepts and managerial activities essential to achieve the goals of health care organizations are examined and discussed. Managerial processes include planning, decision-making, etc. required to operate and change health care organizations will be discussed. Special emphasis will be placed on the leader/managers role in developing and maintaining an effective system for providing healthcare.

0101	Melvin Seale Class time/details on ELMs	Seats (Total: 25) ONLINE
PLP1	Melvin Seale Class time/details on ELMs	Seats (Total: 35) ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA711 Health Economics and Analysis

Provides an analysis of health and health care services as economic goods. Using microeconomic theories, we will examine the behavior of health care providers, consumers, markets, and firms.

PLH1	Jennifer Todd Class time/details on ELMs	Seats (Total: 35) ONLINE
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.	
PLP1	Jennifer Todd Class time/details on ELMs	Seats (Total: 35) ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA714 Economic Evaluation of Medical Care

Prerequisite: HLSA601 and SPHL602; or students who have taken courses with comparable content may contact the department.

An overview of the theory and applications of cost-benefit analysis, cost-effectiveness analysis, and related forms of economic evaluation/decision analysis in the health care sector.

0101	Xuanzi Qin	Seats (Total: 25)
	Tu 4:00pm - 6:45pm	SPH 0303

HLSA720 Health Law and Ethics

The legal system helps determine the relationships prevailing among individuals, institutions and governments by setting out the rights, duties and powers of the various parties. This course will look at some of the more important concepts the law uses within the context of health services and public health.

PLH1	William Tilburg	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.	
PLP1	Sherry Maykrantz	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA721 Using Demographic Data for Health Policy Analysis

Prerequisite: SPHL602; or students who have taken courses with comparable content may contact the department; or permission of instructor. Additional information: Priority enrollment will be given to students in the Department of Health Services Administration programs.

The goal of this course is to introduce students to the major demographic data sets that are used in health policy research and to provide hands-on experience using these data to answer policy oriented research questions

0101	Michel Boudreaux	Seats (Total: 25)
	Th 4:00pm - 6:45pm	SPH 0303

HLSA723 Health Policy Analysis and Advocacy

Prerequisite: HLSA601.

Examination of the politics of the health policy process, including the effects of American political structure and institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion, and other factors. The emphasis is both on understanding how public policy is made as well as how to influence the process.Students will learn about (1) how health policy is developed, adopted, and implemented, (2) the political, institutional, economic, social, and other factors that influence and shape the process, and (3) the basic approaches and tools of strategic advocacy.

0101	Rebecca Gourevitch M 4:00pm - 6:45pm	Seats (Total: 20) SPH 0116A

HLSA740 **Healthcare Strategic Planning and Marketing**

An understanding of strategic management and marketing is provided which enables the students to lead the process of strategic planning in a healthcare organization. By conducting a marketing and strategic planning process, health care organizations are better able to cope with dramatic changes in technological, social, political, regulatory, and competitive aspects of the health care market. Strategic management enables organizations to identify issues unique to them, which hinder or promote organizational success. Through course readings, class discussions, analyses of secondary quantitative and qualitative data, and presentation of case studies, students gain a thorough understanding of the strategic management process. Students will apply core competencies through a comprehensive strategic and marketing plan. Plans will be defended through an oral presentation.

0101	Aryn Phillips W 4:00pm - 6:45pm	Seats (Total: 25) SPH 1301
PLH1	Negin Fouladi Class time/details on ELMs *Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.*	Seats (Total: 35) ONLINE
PLP1	Negin Fouladi Class time/details on ELMs *Must be in Health Administration, Online. Golden ID students are not eligible for this section.*	Seats (Total: 35) ONLINE

HLSA760 **Healthcare Financial Management**

Offers content in health services financial management with emphasis on applying traditional financial theories to health care and the health care system. Focus on decision-making using accounting and finance theories, principles, concepts and techniqes most important to health care leaders.

0101	Melvin Seale Class time/details on ELMs	Seats (Total: 20) ONLINE

PLP1	Melvin Seale	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online. Golden ID students are not eligible for this section.	

HLSA766 **Foundational Readings in Health Services Research**

Prerequisite: Completion of the six HLSA Health Services Research core courses. Restriction: Must be in Health Services Ph.D. (Doctoral) program.

An overview of the foundational papers that inform health services research and its related disciplines; including literature on key conceptual models, classic empirical studies, and research illustrating cutting edge methods or findings. The major theoretical frameworks and empirical challenges of the field will be examined through critical reading and discussion among students. The course is organized around preparation for the qualifying exam in the Health Services Ph.D. program.

0101	Xuanzi Qin	Seats (Total: 12)
	F 4:00pm - 6:45pm	SPH 0301
	Class time/details on ELMs	ONLINE

HLSA772 **Healthcare Leadership and Communications**

Health care administrators rely on transformational leadership skills and insights to help their organizations rise to the social financial, public health, and technological challenges of the future. Students will assess and develop their leadership strengths, apply key leadership communication principles, and critically analyze relevent leadership models, exploring their utility in addressing key leadership issues in health care organizations. An underlying theme will be the identification of core values involved in health care delivery, integration of those values in personal and organizational missions, and effective communication to stakeholders.

0101	Elsie Essien	Seats (Total: 23)
	M 4:00pm - 6:45pm	SPH 1301

HLSA776 **Advanced Empirical Methods in Health Services Research**

Prerequisite: HLSA725; or permission of the instructor.

Students will be introduced to advanced empirical methods to analyze unique data features in health services research (HSR). It provides the foundation for applying commonly used econometric models to conduct health services and policy research using secondary datasets. The course may cover the following topics: Generalized Linear Model, Two-Part Model, Count Models, Fixed Effects, Random effects, Multilevel/hierarchical Models, Generalized Estimating Equations (GEE), Survey data analysis, and machine learning algorithms with HSR applications.

0101	Dahai Yue	Seats (Total: 15)
	Tu 4:00pm - 6:45pm	Location: TBA

HLSA778 **Practical Experience in Public Health**

Practical experience providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the experience will depend upon the student's background and career goals.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

HLSA786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Permission of SPHL-Health Services Administration department.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLSA787 **Health Equity Practice, Policy, and Research**

Restriction: Must be in a graduate major in SPHL-School of Public Health; or permission of instructor.

The objective of this course is to introduce students to the role of key stakeholders, including health care systems/organizations, governmental agencies/entities, and community-based organizations in advancing health equity to improve population health. Students will develop a set of foundational practices that centers health equity and social justice to develop, understand, evaluate, analyze, and apply health equity strategies in practice settings. This class is designed to build the capacity of students to translate theory into action and support a dynamic process of learning.

0101	Kellee White Whilby	Seats (Total: 25)
	Th 4:00pm - 6:45pm	SPH 1301

HLSA799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

HLSA898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

HLSA899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HLSC Integrated Life Sciences Spring 2024

HLSC102 **Service-Learning in the Life Sciences**

Prerequisite: HLSC100. Restriction: Must be in the Honors College Integrated Life Sciences program.

The Integrated Life Sciences (ILS) Honors Program includes a rigorous academic curriculum, a research requirement, a living-learning component, and a service-learning experience. Service has been a tradition since 2012 and was initiated by our students, who wanted service incorporated as part of the ILS mission and values. Our students have contributed more than 6,000 hours of their time and talent to campus and local organizations, and this experiential learning has provided an opportunity to apply classroom studies to the real world. In general, these service experiences are directly relevant to their future careers as life scientists, because they contribute to improved access for all people to quality health care, to engaging STEM education, and/or to sustainable environments. The service-learning experience is introduced in the fall semester of the first year of ILS in HLSC100, and completed with a 1-credit course in the spring.

0101	Jalah Townsend, Sabrina Kramer Class time/details on ELMs	Seats (Total: 85) ONLINE	

HLSC227 **Topics in Scientific Integrity and Medical Ethics**

Restriction: Must be in a major in UGST-HCOL-Integrated Life Sciences Program.

Explores ethical issues related to scientific research and integrity as well as issues surrounding medical ethics such as use of limited resources, euthanasia, and physician-assisted suicide. This is a topics class, so we won't be going into detail of philosophical arguments, but we may bring them up as relevant. Moreover, especially as applied to medical ethics, there may be no "right" answer. Instead, we would like you to be able to think critically about the issue, and make a moral argument (as opposed to a logistical argument).

0101	Sabrina Kramer, Najib El-Sayed W 2:00pm - 3:15pm	Seats (Total: 25) ESJ B0320	

HLSC322 **Principles of Genetics and Genomics**

Prerequisite: CHEM131, CHEM132, BSCI160, BSCI161, BSCI170, and BSCI171; or must have completed BSCI170, BSCI171 and two semesters of Chemistry. Restriction: Must be in a major in UGST-HCOL-Integrated Life Sciences Program. Credit only granted for: HLSC322 or BSCI222.

Principles and mechanisms of heredity and gene expression, with a focus on the application of genomics to contemporary medicine, biotechnology, and societal issues.

0101	Leslie Pick MWF 11:00am - 11:50am Tu 2:00pm - 3:50pm	Seats (Total: 22) BPS 1250 LPA 0100	 Discussion
0102	Leslie Pick MWF 11:00am - 11:50am W 2:00pm - 3:50pm	Seats (Total: 22) BPS 1250 LPA 0100	 Discussion

0103	Leslie Pick MWF 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 22) BPS 1250 LPA 0100	 Discussion
0104	Leslie Pick MWF 11:00am - 11:50am F 12:00pm - 1:50pm	Seats (Total: 22) BPS 1250 LPA 0100	 Discussion

HLSC329 **Teaching Practicum in the Life Sciences**

(Perm req)

A guide and support for the undergraduate teaching assistants (UTAs) in the Integrated Life Sciences (ILS) honors living-learning program. UTAs will develop a greater understanding of teaching and learning in the life sciences, with a focus on the academic values of ILS, by exploring education research and theory, discussing learning strategies and techniques, and reflecting on their practice. Students take this course while serving as a undergraduate teaching assistant in the Integrated Life Sciences courses.

0101	Sabrina Kramer Contact instructor or department for details.	Seats (Total: 12)

HLTH Health Spring 2024

HLTH124 **Introduction to Behavioral and Community Health**

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Required of first semester Community Health majors to expose them to introductory-level concepts within the field of behavioral and community health as well as the Community Health degree program. Includes discussion on the delivery of behavioral and community health at the local, state, national, and global levels; career opportunities in the diverse sectors of the community health field; undergraduate programmatic information; and strategies for student success.

0101	M Reynolds M 1:00pm - 1:50pm	Seats (Total: 40) CCC 1200

HLTH140 **Personal and Community Health**

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

0101	James Butler TuTh 9:30am - 10:45am	Seats (Total: 200) CHM 1407

HLTH140H **Personal and Community Health**

(Perm req)

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

0101	James Butler TuTh 9:30am - 10:45am	Seats (Total: 200) CHM 1407

HLTH200 **Introduction to Research in Community Health**

Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

An overview of specific components and steps involved in the community health research process. Content includes, foundations of research, sampling, measurement design, and analysis in a community context.

0101	Dina Borzekowski MWF 2:00pm - 2:50pm *Restricted to Community Health (HLTH) majors only.*	Seats (Total: 35) SPH 1303
0201	Dina Borzekowski MWF 2:00pm - 2:50pm *Restricted to Public Health Science (PHSC) majors only.*	Seats (Total: 15) SPH 1303

HLTH230 **Introduction to Health Behavior**

Psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	Zahra Saboori Th 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 80) ANS 0408 ONLINE

HLTH285 **Controlling Stress and Tension**

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	M Reynolds TuTh 8:00am - 9:15am	Seats (Total: 100) SPH 1312

HLTH285H **Controlling Stress and Tension**

(Perm req)

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	M Reynolds TuTh 8:00am - 9:15am	Seats (Total: 100) SPH 1312

HLTH289 **Topical Investigations**

(Perm req)

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH302 **Methods of Community Health Assessment**

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Kirsten Stoebenau TuTh 9:30am - 10:45am	Seats (Total: 45) BPS 1236

HLTH302H **Methods of Community Health Assessment**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Kirsten Stoebenau TuTh 9:30am - 10:45am	Seats (Total: 5) BPS 1236

HLTH306 **Macro Level Influences on Community Health**

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Zahra Saboori Class time/details on ELMs Th 12:30pm - 1:45pm	Seats (Total: 40) ONLINE CCC 1111

Restricted to majors who entered the program Fall 2018 and later.

HLTH306H **Macro Level Influences on Community Health**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Zahra Saboori Class time/details on ELMs Th 12:30pm - 1:45pm	Seats (Total: 5) ONLINE CCC 1111

HLTH364 **Social Media & Digital Tools for Community & Public Health**

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

Restricted to Community Health (08370) majors who entered the program in Fall 2018 or later.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 25) SPH 1303

HLTH364H **Social Media & Digital Tools for Community & Public Health**

(Perm req)

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 1303	

HLTH366 **Behavioral and Community Issues in Public Health**

Prerequisite: HLTH130, HLTH230, PSYC100, SOCY100, SOCY105, or ANTH260. Restriction: Must be in Public Health Science program; or permission of SPHL-Behavioral & Community Health department. And must have earned a minimum of 45 credits. Additional information: This course will initially be restricted to Public Health Science (PHSC) majors, but could ultimately be opened to other majors, particularly those in HLTH.

The exploration of how social and behavioral science theories and public health concepts and methods can be applied to both the health-illness experience and community interventions.

0101	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 24) SPH 1312 CCC 1105	Discussion
	Restricted to Public Health Science students at College Park.		
0102	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 24) SPH 1312 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0103	Evelyn King-Marshall MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 24) SPH 1312 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0104	Evelyn King-Marshall MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 24) SPH 1312 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		

0105	Evelyn King-Marshall MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 24) SPH 1312 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0106	Evelyn King-Marshall MW 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 24) SPH 1312 CCC 1105	Discussion
	Restricted to Public Health Science students at College Park		
ESG1	Gayle Reznikov W 1:00pm - 3:30pm	Seats (Total: 35) BLD3 3220	
	Restricted to Shady Grove students in the Public Health Science major.		

HLTH377 **Human Sexuality**

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

0101	Jenna Messman Class time/details on ELMs	Seats (Total: 200) ONLINE

HLTH377H **Human Sexuality**

(Perm req)

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

0101	Jenna Messman Class time/details on ELMs	Seats (Total: 200) ONLINE

HLTH386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of SPHL-Behavioral & Community Health department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

HLTH389 **Topical Investigations**

(Perm req)

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH391 **Making a Difference: Applying Community Health**

(Perm req)

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 40)
	MW 12:30pm - 1:45pm	SPH 1303

HLTH391H **Making a Difference: Applying Community Health**

(Perm req)

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 5)
	MW 12:30pm - 1:45pm	SPH 1303

HLTH399 **Community Health Field Work**

(Perm req)

Students will gain practical experience under conditions conducive to educational and professional development. The internship is a supervised period of community/public health activities, carried out in a relevant professional organization, that emphasizes the application of theory and previous coursework.

Contact department for information to register for this course.

HLTH420 **Effective Strategies for Public Health Practice**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH140 and HLTH230 . Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The purpose of this course is to present the interrelationships of curriculum planning, methodology and the selection and use of successful public health presentation strategies. Special problems associated with public health presentations are discussed, and students become familiar with a variety of resources as well as with planning for and implementing demonstration presentations.

0101	M Reynolds TuTh 9:30am - 10:45am	Seats (Total: 20) SPH 0303
0201	M Reynolds TuTh 11:00am - 12:15pm	Seats (Total: 20) SPH 0303

HLTH431 **Health Literacy in Action**

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury TuTh 2:00pm - 3:15pm *Restriction: Students in the Community Health (HLTH) majors.*	Seats (Total: 16) SPH 1302
0201	Catherine Maybury TuTh 2:00pm - 3:15pm *Restriction: Students in the Public Health Science (PHSC) majors.*	Seats (Total: 14) SPH 1302

HLTH431H **Health Literacy in Action**

(Perm req)

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury	Seats (Total: 4)
	TuTh 2:00pm - 3:15pm	SPH 1302

HLTH434 **Introduction to Public Health Informatics**

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

ESG1	Sandra Saperstein	Seats (Total: 35)
	Tu 10:00am - 12:30pm	BLD3 2133
	Restricted to Shady Grove students in the Public Health Science major.	

HLTH471 **Women's Health**

Restriction: Must be in a program in the Harriet Tubman Department of Women, Gender, and Sexuality Studies; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with: WGSS471. Credit only granted for: HLTH471, WMST471, or WGSS471.. Formerly: WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

Cross-listed with WMST471. Credit granted for HLTH471 or WMST471.

0101	M Reynolds	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Restriction: Must be a major in Behavioral and Community Health department; or must be in a major within ARHU-Women's Studies department.	
0201	M Reynolds	Seats (Total: 45)
	Class time/details on ELMs	ONLINE
	Restriction: Must be a Public Health Science major.	
ESG1	M Reynolds	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Class time/details on ELMs	ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	

PLB1	M Reynolds	Seats (Total: 5)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH471H **Women's Health**

(Perm req)

Restriction: Must be in a program in the Harriet Tubman Department of Women, Gender, and Sexuality Studies; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with: WGSS471. Credit only granted for: HLTH471, WMST471, or WGSS471.. Formerly: WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

0101	M Reynolds	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

HLTH489 **Field Laboratory Projects and Workshop**

(Perm req)

A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

Contact department for information to register for this course.

HLTH490 **Professional Preparation in Community Health**

(Perm req)

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201; and students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH391. Restriction: Must be in a major within the Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Carson Peters	Seats (Total: 27)
	TuTh 11:00am - 12:15pm	SPH 0308

0201	Carson Peters TuTh 9:30am - 10:45am	Seats (Total: 27) SPH 0308

HLTH490H **Professional Preparation in Community Health**

(Perm req)

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201; and students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH391. Restriction: Must be in a major within the Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Carson Peters TuTh 11:00am - 12:15pm	Seats (Total: 3) SPH 0308
0201	Carson Peters TuTh 9:30am - 10:45am	Seats (Total: 3) SPH 0308

HLTH491 **Community Health Internship**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH420 and HLTH490. Restriction: Must have completed all program requirements and be in the last semester of the Community Health degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 75)

HLTH492 **BS/MPH Community Health Internship**

(Perm req)

Prerequisite: Minimum grade of C- in HLTH490. Restriction: Must be a Community Health major who has been admitted to the combined BS/MPH degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)

HLTH625 **Community Assessment through Qualitative Methods**

(Perm req)

Restriction: Course will be restricted to Behavioral and Community Health graduate students.

A discussion of major paradigms in qualitative inquiry, an overview of the process of qualitative research, and an introduction to several qualitative research methods, including grounded theory, ethnography, phenomenology, and content analysis. Students will collect, transcribe, analyze, and present qualitative data using introductory interview and analytic techniques.

0101	Kirsten Stoebenau Tu 4:00pm - 6:45pm	Seats (Total: 15) SPH 1234A
PLB1	Zahra Saboori Class time/details on ELMs	Seats (Total: 15) ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH653 **Quantitative Research Methods II in Public Health**

(Perm req)

Prerequisite: HLTH652. Restriction: Must be in a major within SPHL-Behavioral & Community Health department. Credit only granted for: HLTH653 or HLTH688T. Formerly: HLTH688T.

Intermediate and advanced statistics and procedures in health-related research for doctoral students with the focus on applications of these statistical methodological methods to public health research.

0101	Min Wang M 4:00pm - 6:45pm	Seats (Total: 10) SPH 0301

HLTH665 **Health Behavior I: Theoretical Foundations of Health Behavior**

Provides students with an understanding of the application of the social and behavioral sciences to health; addressing behavioral, social, and cultural factors that influence individual and population health and health disparities over the life course. Public health issues related to individuals and populations will be examined in terms of social and behavioral theories, empirical research findings, and methodologies.

0101	Hector Alcala Th 4:00pm - 6:45pm	Seats (Total: 25) CCC 1105

PLB1	Katherine Sharp	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH666 **Health Behavior II: Applying Health Behavior Theory**

Prerequisite: HLTH665.

Develops students' expertise in applying health behavior theory, with an emphasis on cultural appropriateness and through a social justice lens. This course will build on material learned in HLTH 665, and will involve a particular emphasis on application of health behavior theory. The course will be taught using a "hands-on" approach, giving students a skill foundation in applying health behavior theories throughout the life course of an intervention from the research question and hypothesis, to intervention development, and evaluation.

0101	Cheryl Knott	Seats (Total: 12)
	W 4:00pm - 6:45pm	HBK 0108

HLTH671 **Public Health Communication**

(Perm req)

Restriction: Non-SPH students must obtain permission from the instructor prior to registering. Credit only granted for: HLTH670 or HLTH671 and HLTH672. Formerly: HLTH670.

An exploration of the the broad and diverse field of health communication including medical encounters, everyday communication about health, advertising, news, public health campaigns, community outreach, public policy, and international programs. Theories and applied efforts that have been studied and documented will be examined.

0101	Devlon Jackson	Seats (Total: 25)
	W 4:00pm - 6:45pm	SPH 0303
PLB1	Devlon Jackson	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH688 **Special Problems in Health Education**

(Perm req)

Contact department for information to register for this course.

HLTH711 **Advanced Research Methods in Health**

(Perm req)

Prerequisite: HLTH710. Restriction: Must be in MPH: Community Health Education (Master's) program; or must be in Ph.D.: Public and Community Health (Doctoral) program.

Quantitative techniques, advanced research methods and design issues.

0101	Elaine Doherty	Seats (Total: 10)
	Th 4:00pm - 6:45pm	SPH 1242

HLTH776 Community Health Program Evaluation

Prerequisite: HLTH710 and HLTH774. Restriction: Must be in the Behavioral and Community Health (BCHL) doctoral program; and permission of Behavioral and Community Health department; or permission of instructor. Credit only granted for: HLTH775 or HLTH774 and HLTH776. Formerly: HLTH775.

An application of basic research methods, and the evaluation of community health programs. Students will evaluate the effectiveness of a community health intervention.

0101	Amelia Arria	Seats (Total: 15)
	W 4:00pm - 6:45pm	ATL 1106

HLTH778 Practical Experience in Public Health

Practical Experience seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practical experience will depend upon the student's background and career goals.

0101	Evelyn King-Marshall	Seats (Total: 10)
	Contact instructor or department for details.	
PLB1	Evelyn King-Marshall	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH784 Guided Capstone Preparation Seminar

Prerequisite: Must have attended a capstone project orientation session; and must have completed or be concurrently enrolled in HLTH625, HLTH665, and HLTH710.

The purpose of this seminar is to guide students through the major steps and deadlines associated with developing their capstone project, which is the MPH degree culminating experience. The capstone project requires that students apply the knowledge and skills acquired during their MPH program to meet the needs of a stakeholder group or person. Some examples of needs (deliverables) include: an infographic, a website, a curriculum, a lesson plan, an app, an evaluation plan, a policy brief, etc. Some examples of stakeholders: include legislators, non-profit organizations, a faculty researcher, a government (county, state or federal) agency, etc. The project is very applied in nature and the result is a deliverable that can be used immediately by the stakeholder.

0101	Hector Alcala Contact instructor or department for details.	Seats (Total: 15)
PLB1	Hector Alcala Class time/details on ELMs	Seats (Total: 8) ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

HLTH786 **Capstone Project in Public Health**

(Perm req)

Prerequisite: Must have completed all required coursework; and permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within SPHL-Behavioral & Community Health department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLTH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

HLTH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

HNUH University Honors Spring 2024

HNUH100 **Gateway Seminar**

(Perm req)

First-semester orientation and exploration seminar required of all UH students.

First-semester orientation and exploration seminar required of all UH students.

0101	Natalie Kress, Christine Jones Class time/details on ELMs	Seats (Total: 10) ONLINE	

HNUH218B **Frederick Douglass's America**

Credit only granted for: HNUH218B or HIST227. Formerly: HNUH218B.

What does it mean to be free in the United States? The concept of freedom was embedded in the nation's political culture in the Declaration of Independence, and it has remained a cherished and contested ideal. We can interrogate this concept through the life and times of Frederick Douglass (1818-1895), who dreamed eloquently of freedom, thought carefully about its limits, and worked ardently to build a firmer freedom for a broader population. With Douglass as our guide, we will examine the survival of slavery in a nation built on freedom, images of the expanding United States as a land of opportunity, and the complex meanings and tremendous costs of freedom struggles during the nineteenth century. This history will push you to think critically about the contested concepts that shape our lives, and to consider the values and the perils of a society that positions freedom as its highest ideal.

Restricted to UH students matriculating in Fall 2020 or later. HNUH218B is the required I-Series course in the Freedom at Stake thematic cluster. Freedom at Stake courses will be offered through Spring 2024.

0102	Christopher Bonner MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) CCC 1100 PLS 1117	 Discussion
0103	Christopher Bonner MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) CCC 1100 PLS 1117	 Discussion

HNUH218J **The Free Internet**

Free speech, free porn, free shipping... What does it mean for something to be 'free' online and how does our participation in the internet liberate or constrain our identities, bodies, and relation with others? In this class we'll talk about the economics, politics, and culture of the internet to assess how values and value are made and circulated within its technologies. We'll focus on the many ways the term 'free' operates in this context, notably, around the ability to create, distribute, and access information. Centered on the US with a comparative eye on the global internet ecosystem, this seminar asks: Where do the rights and responsibilities for a "free internet" come from, and to whom do they apply? What identities and bodies are at risk or rewarded in these systems? What are the choices individuals, platforms, and governments must make to determine the future of the internet and the freedom of the people who build and use it?

HNUH218J is part of the Freedom At Stake thematic cluster and pairs with HNUH218B to complete the cluster. Freedom At Stake courses will be offered through Spring 2024.

0101	Alexandra Harlig TuTh 2:00pm - 3:15pm	Seats (Total: 20) YDH 0104F
0201	Alexandra Harlig TuTh 3:30pm - 4:45pm	Seats (Total: 20) YDH 0104F

HNUH218W **Freedom and Captivity: Prisons, Punishment, and Citizenship**

What does freedom mean if you're incarcerated? How is freedom, citizenship, and social membership mediated through the power of the state? What are the implications of punishment on how freedom is constructed, understood, and experienced? The United States purports to be a beacon of freedom while simultaneously incarcerating more people than any other country in the world. Throughout the course, we will discuss the writings of scholars, theorists, historians, and--most importantly--incarcerated people to interrogate the concept of "freedom" from the vantage point of the prison. Students will use these insights to analyze the complex tensions and relationships between social ideals and practice.

This course is part of the Freedom at Stake Thematic Cluster and pairs with HNUH218B to complete the cluster. Freedom at Stake courses will be offered through Spring 2024.

0101	Robert Stewart Th 2:00pm - 4:30pm	Seats (Total: 20) LEF 0135

HNUH219P **Transform Maryland: Management Consulting Internship**

This three-credit internship, open to all majors, offers a fully immersive consulting experience that affords undergraduate students the opportunity to engage with a real client. Working in dynamic teams, students learn advanced management consulting strategies, and apply critical thinking and solution design to real world cases, all while developing general professional acumen. The internship innovates real University of Maryland business processes. Managed by senior members of the DIT's Enterprise Planning and Continuous Improvement unit, the internship matches teams with top-tier professionals and a senior university administrator as a project client. Supported by professional coaching from practicing talent managers and management consultants, students research and benchmark against other schools, analyze and synthesize results, and formulate actionable recommendations for the client. The internship culminates in a recommendation pitch to campus leadership.

HNUH219P follows HUNH219T to complete the Transform Maryland Theory/Practice track.

0101	Megan MacKenzie, Joseph Drasin Contact instructor or department for details.	Seats (Total: 10)

HNUH228B **Redesigning Life: Prospects and Consequences**

What is at stake for our world as humans seek to redesign biological organisms? Biotechnology advances are enabling us to read, edit and write genomes, including our own. This revolution has been fueled by the quest to understand and cure disease. Yet, these innovations have far-reaching consequences beyond medicine and will reshape our world in ways we can only imagine - or fear. The course will challenge students to confront the risks and rewards for them, their family, their community, and their future, as biotechnology moves out of specialized laboratories and into homes. A demystifying, low-tech approach will introduce them to contemporary genome redesign, clarifying the current limitations and future goals of the field. Students will debate whether redesigning plants and animals will enhance or inhibit momentum in human genome engineering, and formulate their own arguments about who should be able to use these tools and where, who decides, and how much society is willing to risk.

Restricted to UH students matriculating in Fall 2020 or later. HNUH228B is the required I-Series course in the Redesigning Life thematic cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Edward Eisenstein TuTh 12:30pm - 1:45pm	Seats (Total: 60) PLS 1140

HNUH228U **A Life Worth Living: The Legacy of Eugenics in Genetics**

Should parents be able to choose their child's eye color? Or alter their child's genome to eliminate a hereditary disability? While these might seem like different concerns, both are eugenic questions. In this class students will learn about the legacy of eugenics and its role in the development of genetics by analyzing science fiction works through the lens of disability studies. We'll explore the past to identify who has historically been considered "fit" and look to the future to consider what kinds of embodiments, and life experiences, society seems willing to let disappear.

Restricted to UH students matriculating in Fall 2020 or later. HNUH228U is part of the Redesigning Life thematic cluster and pairs with HNUH228B to complete the cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Leigha McReynolds TuTh 2:00pm - 3:15pm	Seats (Total: 20) YDH 0104A
0201	Leigha McReynolds TuTh 3:30pm - 4:45pm	Seats (Total: 20) YDH 0104A

HNUH228W **Planetary Protection vs. Planetary Imperialism**

International space agencies, such as NASA, ESA, and CNSA, continue to push the boundaries of deep space exploration, buoyed by public excitement, scientific ambition, and political motivation. However, the invasion of alien environments warrants an ethical consideration. What are the risks of forward contamination? What are the potential consequences of reverse contamination? How do we avoid a "space race" incentivized by imperialism? What happens next if we do discover life on another planetary body? This course equips students to grapple with such questions in light of the current state of planetary science, world affairs, and the near-term prospects for the commercialization of spaceflight.

This course is part of the Redesigning Life thematic cluster and pairs with HNUH228B to complete the cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Ricardo Arevalo	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 0125

HNUH229P **Climate in Crisis: Strategy and Advocacy**

This theory and practice track examines theoretical frameworks for understanding climate change and concrete cases that shed light on the complexity of managing it. In this, the practical component of the Climate in Crisis track, we explore several domestic energy and climate policy case studies, examining the competing roles played by various interest groups that influence legislative and regulatory outcomes, with a focus on differing organizational advocacy strategies. Once we have mastered organizational advocacy strategies, students bring those tools to bear on the most recent US Federal policy mandates and legislation. In 229T, students will complement this work with a deep dive into the nature of public goods and climate change policy, among other crucial considerations.

HNUH229P pairs with HNUH229T to complete the Climate in Crisis Theory/Practice track. This pair of courses can be taken in any order.

0101	Tyson Slocum	Seats (Total: 20)
	W 3:00pm - 5:30pm	SPH 0307

HNUH238B **Systemic Racism in Public Opinion and Policy Attitudes**

If we believe that racism is bad, why do we still support racist policies? No matter how hard we work to end it, the challenge of racism seems here to stay. Though attitudes toward racial segregation in schools have changed, schools are more racially isolated than ever. There is a disconnect in American public life between support for the idea of equality and resistance to policies aimed at addressing racism, and a deep divide over how to eliminate inequality. This course focuses on public opinion and how these attitudes inform public policy. Can we address systemic inequality through public engagement and by changing the national narrative with the support of evidence? Does change come from shifting views or shifting policies? Students will explore these issues through a case study on racial equity in the Honors College. By developing skills in evidence-based op-ed writing and survey-based experiments, students will add their voices to these pressing public debates of our time.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238B is the required I-Series course in the Systemic Racism thematic cluster. Systemic Racism courses will be offered through Spring 2024.

0101	Janelle Wong	Seats (Total: 60)
	MW 10:00am - 11:15am	TWS 0320

HNUH238U **Unequal Opportunity? Race and the Future of American Education**

America's schools are dynamic microcosms of society at large. They simultaneously reflect, reproduce, and shape what happens outside of the classroom, including the many ways that racism affects us all. The educational mechanisms that operate for the benefit of some and to the detriment of others are often hard to see, often because they are hidden in plain sight. For example, national tests are standardized. When racialized differences in test scores appear, they are called "achievement gaps" and the disparity is attributed to essential differences or cultural deficiency rather than inequitable access and opportunity. In this course students will learn methods to critically examine such commonplace notions as the achievement gap and to document their effects on society. They will also develop strategies for self-reflection that enable them to confront inequity in their own educational experience and work to create change.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the Systemic Racism thematic cluster. Students who enroll in HNUH238U are required to complete HNUH238B to complete the cluster. Systemic Racism courses will be offered through spring 2024.

0101	Robert Graham MW 1:00pm - 2:15pm	Seats (Total: 20) YDH 104A
0201	Robert Graham MW 3:00pm - 4:15pm	Seats (Total: 20) YDH 104A

HNUH238W **Monsters and Racism: Black Horror and Speculative Fiction**

Cross-listed with: AAAS271, ENGL289J. Credit only granted for: AAAS271, ENGL289J, HONR299Y, HNUH238W, WGSS271 or WGSS298W. Formerly: HNUH238W.

The previous decade has been considered a renaissance for Black Horror. From Get Out to Lovecraft Country, the genre has enjoyed unprecedented mainstream media buzz and accolades. This course looks at contemporary Black horror and speculative fiction as cultural texts which put into question our notions of human(e) and inhuman(e) through critiques of white supremacy and accompanying oppressions. Students will learn a host of critical skills through close reading and analysis of literature and film by Black creators such as Jordan Peele, Misha Green, Toni Morrison, Jewelle Gomez, and Octavia Butler. With the ability to interpret cultural texts using literary criticism, film analysis, history, cultural studies, ethnic studies, feminist theory, and the social sciences, students will connect these texts to continuing historical and contemporary issues of racial and cultural oppression such as medical discrimination, policing and criminalization, misogynoir, and racialized capitalism.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the Systemic Racism Thematic Cluster and must be paired with HNUH 238B to complete the cluster. Systemic Racism courses will be offered through Spring 2024.

0101	Sydney Lewis TuTh 11:00am - 12:15pm	Seats (Total: 20) PAC 1815

HNUH248B **Setting the Table: The Challenges and Opportunities for Sustainable Agriculture**

What will the farm of the future look like? Our current food system is plagued with paradoxes. An estimated 41.2 million Americans are classified as food insecure, but we produce 4,000 calories per person per day. Between 2008 and 2012, 1.6 million acres of long-term grasslands were converted to crop production, yet more than 350,000 acres of farmland were lost to development annually. This course will investigate what determines the food we eat and how we can make changes today that will improve both food access and the environment for future generations. Students will learn agribusiness, as well as alternative food movements and regenerative agriculture. They will meet experts from the USDA and Maryland producers. By growing their own vegetables, tracking food consumption, and exploring family history linked to farming, students will leave the course as conscious consumers empowered to navigate food system reform.

Restricted to UH students matriculating in Fall 2020 or later. HNUH248B is the required I-Series course in the Global Crises, Sustainable Futures thematic cluster. Global Crises, Sustainable Futures courses will be offered through Spring 2024.

0101	Stephanie Yarwood TuTh 11:00am - 12:15pm	Seats (Total: 55) EGR 1108

HNUH248U **Building Community: How to Make Friends**

Credit only granted for: HNUH248U or HNUH269P. Formerly: HNUH248U.

In 2017, U.S. Surgeon General Vivek Murthy deemed loneliness an "epidemic." While the rise of social media is meant to foster connection, over 23% of adults report being lonely and social networks have been shrinking for decades. Despite increasing rates of loneliness, it is still possible to overcome these trends and find connection. We tend to assume that we should know how to connect with others intuitively, but, as rising rates of loneliness indicate, this is not the case: connection is something we must learn and practice. In this applied course, students will learn the science of connection and engage in practical activities designed to help them make and keep friends. They will leave the course better able to foster meaningful connections. This course is self-contained but paired with HNUH269T in the Building Community track, where you will learn the social value of showing up, for the world and for yourself.

Restricted to UH students matriculating in Fall 2020 or later. HNUH248U is part of the Global Crises, Sustainable Futures thematic cluster and pairs with HNUH248B to complete the cluster. Global Crises, Sustainable Futures courses will be offered through Spring 2024.

0101	Marisa Franco TuTh 9:30am - 10:45am	Seats (Total: 20) YDH 0104A
0201	Marisa Franco TuTh 11:00am - 12:15pm	Seats (Total: 20) YDH 0104A

HNUH248W **Save the Soil, Save the World**

Canada, Maui, eastern Libya. We are witnessing the burning and flooding of our planet. A major influence on these catastrophes are the greenhouse gasses presently trapping too much heat close to earth and warming it beyond acceptable limits. Our survival depends on reversing this trend. But how? An answer lies just beneath our feet. According to the UN Food and Agriculture Organization, the top 30 cm of the world's soil contains about twice as much carbon as the entire atmosphere and more than is stored in all the vegetation on earth. Soil turns out to be a great way to keep carbon out of the atmosphere. This course explores the critical role soils play not just in our food production, but also in our efforts to prevent the worst effects of climate change. With their knowledge of the drivers of climate change and soil characteristics, students in this course will research and propose more sustainable soil management practices to help mitigate climate change and save the world.

HNUH248W is part of the Global Crises, Sustainable Futures thematic cluster and pairs with HNUH248B to complete the cluster. Global Crises, Sustainable Futures courses will be offered through Spring 2024.

0101	Eni Baballari	Seats (Total: 20)
	MW 2:00pm - 3:15pm	YDH 0104F

HNUH249P **National Security: US Foreign Policy**

Credit only granted for: HNUH249P or HONR269T. Formerly: HONR269T.

Following the terrorist attacks of September 11, 2001, the U.S. launched a major effort to dismantle the Taliban and create a sustainable democracy in Afghanistan. In 2021, the Taliban took control of the country. Was the U.S. effort doomed to fail? To answer this question, UH students will partner with peers at the American University of Afghanistan through a virtual global classroom to examine the lessons learned from the U.S. and international presence in Afghanistan over the past 20 years. Through reading assignments and virtual meetings with former senior U.S. and Afghan officials, students will examine the reasons behind the downfall of the country and analyze whether the outcome could have been changed. Students are not expected to have any prior knowledge about the conflict in Afghanistan. This course is self-contained but paired with HNUH249T in the National Security track, which explores debates around efforts to protect the nation from terrorism while preserving our values.

HNUH249P pairs with HNUH249T to complete the National Security Theory/Practice track. This pair of courses can be taken in any order.

0101	Temim Nusraty	Seats (Total: 20)
	Tu 6:30pm - 9:00pm	ASY 3219

HNUH249T **National Security: Domestic Dilemmas**

Credit only granted for: HNUH249T or HONR278D. Formerly: HONR278D.

The police detain a man thought to be plotting a terrorist attack the next day in a U.S. city that would kill or injure thousands. They want to subject him to "enhanced interrogation," which some consider to be torture. Should the police be permitted to use enhanced interrogation techniques? Who decides? This course will ask key questions raised during the efforts of our national security apparatus to protect the nation. Given the tension between the powers of the government to protect citizens, and the necessary limits on that power, what are the fundamental principles that should govern our efforts to protect the nation while preserving our values? Students will try their hand at finding the delicate balance of these principles in difficult national security dilemmas. This course is self-contained but paired with HNUH249P in the National Security track, which explores post-9/11 policy decisions around the U.S. effort to create a sustainable democracy in Afghanistan.

0101	Daniel Rosenthal	Seats (Total: 20)
	M 7:00pm - 9:30pm	ESJ B0322

HNUH258B **The Ecology of Childhood Poverty**

How does poverty shape the relationship between humans and their environment? It may seem obvious that being poor in childhood has enduring effects on development. What is less obvious is how experiencing poverty in childhood shapes relationships between children and their surroundings, including family interactions, peer relationships, adult dynamics, and the health of the community. Less clear still is the extent to which positive interactions with caretakers and social supports can protect children from potential harm as they grow up. This course focuses on the complexity of poverty as a social force and community concern. Students will investigate the nature of poverty through an interdisciplinary lens that includes social theory, developmental psychology, and empirical studies. After analyzing various approaches to the study of child poverty, students will be in a position to use research on parenting and poverty to evaluate public policy and social programs in their own backyard.

HNUH258B is the required I-Series course in the Metamorphosis thematic cluster. Metamorphosis courses will be offered through Spring 2025.

0101	Natasha Cabrera	Seats (Total: 60)
	W 1:00pm - 3:45pm	MCB 1207

HNUH258U **The Basis of Behavior: Evolution and the Origin of Actions**

Why do some monkeys spend time grooming each other in large groups, while others lose their minds with rage if another monkey comes too close? Complex organisms exhibit behaviors that both fascinate and confound, and the way an animal behaves dictates how it interacts with its environment, with profound consequences. Individual behaviors can have dramatic effects on individual fitness, an individual's groupmates, and even the evolution of species. This leads to a fundamental question in behavioral evolution: why do animals do the things they do? The answer lies in the interaction between individual experiences and eons of natural selection. In this seminar, students investigate what organisms were, what they have become, and why. With a focus on the transitions in behavior that caused single cells to evolve over time into complex societies, students will apply evolutionary principles to individual development and explore how and why individuals choose certain behaviors over others.

This course is part of the Metamorphosis thematic cluster and pairs with HNUH258B to complete the cluster. Metamorphosis courses will be offered through Spring 2025

0101	Riva Riley MW 9:00am - 10:15am	Seats (Total: 20) YDH 0104F
0201	Riva Riley MW 11:00am - 12:15pm	Seats (Total: 20) YDH 0104F

HNUH258V **Collective Behavior in Natural and Artificial Systems**

From fish schools to traffic jams, natural and artificial systems alike exhibit forms of collective behavior. In fact, the onset of collective behavior in a system of interacting individuals often corresponds to a period of broader transition in the system from a disordered to ordered state. Why do environments as diverse as the ocean and human society follow the same pattern of emergence? The course takes up this question through an exploration of physical and biological systems, such as insects and animal groups, and human crowds; and case studies in transportation, robotics, and social networks. Students will learn to model, analyze, predict, and even synthesize collective networks of all kinds using quantitative methods such as graph theory, dynamical systems theory, agent-based modeling, and data-driven approaches. No prior knowledge of systems theory or methodology is necessary.

This course is part of the Metamorphosis thematic cluster and pairs with HNUH258B to complete the cluster. Metamorphosis courses will be offered through Spring 2025.

0101	Derek Paley MW 2:00pm - 3:15pm	Seats (Total: 20) EGR 3102

HNUH258W **Migration, Myth, and Memory: Humanity and Hope in the Immigrant Novel**

Stories of immigrants to the United States reveal the metamorphosis of the nation itself: labor, culture, religion, and politics have all been transformed by diverse waves of new Americans. Simultaneously, the outlook and traditions of migrants have been profoundly affected by these processes. As a result, both migration and Americanism remain highly contested notions, particularly in light of forced migrations that mark the nation's early history. This course grapples with the complex ways that identity, memory, and culture are made and remade. Moreover, students engage these concepts at the granular level, considering how individual experiences interface with broad historical trends. Through discussions centered on novels about diverse immigrant experiences, students will learn to contextualize problems, re-humanize individuals associated with major social trends and political controversies, and transcend cliches about immigration and American culture through humane interrogation.

This course is part of the Metamorphosis thematic cluster and pairs with HNUH258B to complete the cluster. Metamorphosis courses will be offered through Spring 2025.

0101	Robert Chiles Th 6:00pm - 8:30pm	Seats (Total: 20) TLF 1103

HNUH259T **Drawn to D.C.: Reading the City**

A movement known as the Metropolitan Revolution has recognized cities as sites of concentrated economic growth and political power. What does that movement have to do with you? Not only does the city change who you are, but the ambitions and fears that you bring to it also alter what is already there. With Washington, D.C. as a case study, this course considers cities in the context of the ambitious plans that developed them and the unbuilt spaces that open us to imagining them anew. From the ideological tensions and competing policies that politicize urban space, to the construction challenges and social implications of choices made, why we build is as important as what we build. We will experience Washington through its history of spaces, stories, music, art; and learn to see ourselves as co-designers of its present. This course is self-contained but paired with HNUH259P in the Drawn to D.C. track, which explores the created spaces we inhabit, and how they inhabit us.

HUNH259T pairs with HUNH259P to complete the Drawn to D.C. Theory/Practice track. This pair of courses can be taken in any order.

0101	Ingrid Satelmajer MW 2:00pm - 3:15pm	Seats (Total: 20) LEF 1201	

HNUH268B **Global Heritage**

What traction does the past have in society today? This course explores globally how the past gains traction in society today and becomes remade in the present. That inquiry will be guided by the idea of heritage, as it mobilizes the past within a broad spectrum of social, political, economic, and environmental issues. We will examine western relationships to the past as intimately tied to property and the drive to plunder, collect, and catalogue. Increasingly, conceptions of heritage include landscapes, as well as intangibles such as music, dance, and folklore. This broad definition honors the diversity of present-day relations to the past, even as it strains heritage management models that are organized around definitions and regulations, and bear the weight of historical injustice. Close examination of heritage at work within global crisis and struggle prompts questions on who owns the past, and who owns up to it. What do we owe the past, and will we be good ancestors to the future?

HNUH268B is the required I-Series course in the Heritage thematic cluster. Heritage courses will be offered through Spring 2025

0101	Kathryn Lafrenz Samuels MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) SQH 1119 SQH 1103	 Discussion
0102	Kathryn Lafrenz Samuels MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) SQH 1119 SQH 1103	 Discussion
0103	Kathryn Lafrenz Samuels MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) SQH 1119 SQH 1103	 Discussion

HNUH268U **Power, Politics, and the Past: Local Communities and Cultural Heritage**

The politics of the past surround us. An online memorial to the struggle against the Dakota Pipeline, the call to commemorate Indigeneity instead of Columbus, monuments to the Confederacy torn down... How do diverse communities claim--or reject--particular places, practices, and ideas as their shared heritage, and why? In this course, we will explore these questions with reference to Indigenous communities in global context, with a particular focus on Mexico. Students will engage with theoretical approaches and contemporary case studies to analyze the politics and ethics surrounding the use of the past in diverse Indigenous presents. Visits to DC's museums and archives will help students practice theorizing real-world materials. Students will leave the course with the analytical tools necessary to understand cultural heritage and advocate for Indigenous perspectives on the past. A typical day in this course will involve reading an article-length work and participating in student-led discussion.

This course is part of the Heritage thematic cluster and pairs with HNUH268B to complete the cluster. Heritage courses will be offered through Spring 2025.

0101	Samuel Holley-Kline MW 9:00am - 10:15am	Seats (Total: 20) YDH 0104A
0102	Samuel Holley-Kline MW 11:00am - 12:15pm	Seats (Total: 20) YDH 0104A

HNUH268V **Art Museums and the Politics of Cultural Heritage**

Despite the great variety of art museums in the world, these institutions share a common goal: to preserve and interpret cultural consciousness through objects or other material facets of human agency. While these collections often feature the cultural heritage(s) of their lands, in many cases, they also hold objects that have been taken away through illegal or morally questionable practices from their original context. Thus, they prompt discussions about who these holdings really belong to, how they should be displayed and interpreted, and whether they should return to their places of origin. This course explores a number of these issues by asking some fundamental questions: why do art museums matter? How have they evolved over time? What can they become in the future? Students will debate these questions to gain a finer understanding of the complex role of these institutions as custodians of cultural heritage.

This course is part of the Heritage thematic cluster and pairs with HNUH268B to complete the cluster. Heritage courses will be offered through Spring 2025.

0101	Aneta Georgievska-Shine TuTh 2:00pm - 3:15pm	Seats (Total: 20) ASY 3217

HNUH278B **Democratic Habits**

How do ordinary citizens power democracy? At the age of 18, every American citizen is endowed with the right to vote, but what if democracy demands more than voting? With democratic processes seemingly in peril all around us, what can and should ordinary citizens do to safeguard democracy? Looking beyond the basic right to vote, this class will instead explore the complex ecosystem of citizenship practices necessary for collective self-governance. Turning to both philosophy and history, the course material addresses the power and peril of such civic habits as mutual aid, economic participation, tolerance, attention, organizing, protest, and more. We consider what resources these habits require, what virtues they inspire, and what happens when they conflict with each other. Students in this course will acquire the tools to develop and act on their own answer to the pressing question of what it will take to save democracy.

0101	Kristjana Maddux	Seats (Total: 60)
	MW 2:00pm - 3:15pm	KEY 0106
	HNUH278B is the required I-Series course in the Civil Bonds thematic cluster. Civil Bonds courses will be offered through Spring 2025.	

HNUH278U **Indigenous Knowledge, Supernatural Remedy, and Collective Action: Lessons from Agrarian Societies**

How were human communities sustained before the rise of capitalism, individualism, and secularism? Where can we look to imagine a world in which modern science, polity, and ethics are not the defining system of civil social? Through an exploration of stories from late medieval Europe, China, Southeast Asia, and other regional communities, with a particular focus on the East, this course aims at de-orientalizing the narratives of the Western world by recovering the collective practices of the global past and present. Interrogating the idea that human history has been a linear process of industrialization and secularization, this course encourages students to reflect on the limits and problems of modernization, and learn from cultures whose practices were displaced or silenced by colonial knowledge production. Students will be empowered to consider, and even envision, alternative versions of modernity and the future of our world.

0101	Yupeng Jiao	Seats (Total: 20)
	TuTh 9:30am - 10:45am	YDH 0104F
	HNUH278U is part of the Civil Bonds thematic cluster and pairs with HNUH278B to complete the cluster. Civil Bonds courses will be offered through Spring 2025.	
0201	Yupeng Jiao	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	YDH 0104F
	HNUH278U is part of the Civil Bonds thematic cluster and pairs with HNUH278B to complete the cluster. Civil Bonds courses will be offered through Spring 2025.	

HNUH278V **Climate Change, Infectious Disease, and Civil Society**

Viruses that are lethal to human life have been on earth for centuries. Why are they surging now? And how can we respond to the recent breakneck spread of Coronavirus? This class begins its journey with Homo sapiens, our ancestor that dispersed out of Africa and carried infectious diseases across the planet. Human expansion into new ecosystems also provided opportunities for us to acquire new pathogens. While all of human history is marked by diseases caused by human migration, the Industrial Revolution greatly accelerated human mobility while planting the seeds of the human impact on climate change. Today, the increasingly rapid movement of people and goods, combined with a warming planet and the large-scale disruption of major ecosystems has witnessed an unprecedented spread of infectious diseases. Students will explore how these trends impact our lives and collectively challenge themselves to do what must be done to save our planet and ourselves.

0101	Jonathan Dinman	Seats (Total: 20)
	TuTh 11:00am - 12:30pm	MCB 1123
	HNUH278V is part of the Civil Bonds thematic cluster and pairs with HNUH278B to complete the cluster. Civil Bonds courses will be offered through Spring 2025.	

HNUH288B **Race, Reproduction and Rights**

Can humanity thrive without ensuring reproductive freedom? The 2022 US Supreme Court decision that the right to an abortion is unconstitutional has generated impassioned debate about women's rights and access to reproductive health care in the US and globally. This debate opens space to think beyond "pro-choice or pro-life" polarization and create conditions that promote equity, respect for rights, and a healthy society. These conditions would need to address injustices such as the racism, gender inequalities, marginalization, and colonization that produce disparities in reproductive health care and jeopardize the well-being of individuals, families, communities, and countries. Who controls the bodies of marginalized women and men? What is the meaning of reproductive rights for people who have little power? This course challenges students to bring together multiple disciplines, become critical data consumers, and develop innovative ways to use this knowledge to influence policy.

0101	Sangeetha Madhavan	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	ATL 2400
	HNUH288B is the required I-Series course in the Health Matters thematic cluster. Health Matters courses will be offered through Spring 2025.	

HNUH288U **The Body Knows: Creating Healthy Intimacy on College Campuses**

How do we figure out what we physically desire? How do we know where our boundaries are and how do we communicate that to others? What would it look like to create a campus community where young people are confident about their sexuality and their ability to communicate the nuances of their needs to potential partners? This course is designed as a creative workshop to help students put their own embodied knowledge in conversation with theories and practices of healthy intimacy. Core texts explore the history of sexual violence as a tool of colonization, the relationship between feminism and sex-positivity in popular culture, and the consent theories that have become central to college campus responses to sexual violence. With the help of performance-based techniques, students will have the opportunity to research issues specific to UMD, design curricula for their peers, and advocate for an end to sexual violence on campus.

This course is part of the Health Matters thematic cluster. Students who enroll in HNUH 288U are required to complete HNUH 288B to complete the cluster. Health Matters courses will be offered through Spring 2025.

0101	Katherine Lieder TuTh 2:00pm - 3:15pm	Seats (Total: 20) PKT 2102
0201	Katherine Lieder TuTh 11:00am - 12:15pm	Seats (Total: 20) PKT 2102

HNUH288V **Campus Well-being: Solving the Health Inequity Puzzle**

The last few years have highlighted the need to focus greater effort on health and well-being, and the challenge of doing it equitably. College campuses, in particular, have made student care and equitable access a priority. Yet, the data suggest that we are still not succeeding across the board. This seminar takes the current student body at UMD as its case study to understand the range of factors that contribute to well-being and health disparities. Students will review reports and relevant literature about the most recent campus surveys: the University New Student Census, Withdrawal Survey, the Food Access & Student Well-being Study, and surveys completed by Counseling Center clients. They will apply the study findings to their everyday lives, formulate evidence-based recommendations regarding student programs/services, brainstorm questions to be included in future campus surveys, and test ways to use research to promote positive change for all.

0101	Yu-Wei Wang MW 3:30pm - 4:45pm	Seats (Total: 20) HJP 2217
	HNUH288V is part of the Health Matters thematic cluster and pairs with HNUH288B to complete the cluster. Health Matters courses will be offered through Spring 2025.	

HNUH300 **Vantage Point Seminar**

Goal-setting and project-design seminar required of all UH students and taken in the second semester of the sophomore year or the first semester of the junior year.

0101	Ingrid Satelmajer, Christine Jones MW 9:00am - 9:50am	Seats (Total: 20) LEF 1222
0201	Ingrid Satelmajer MW 10:00am - 10:50am	Seats (Total: 20) LEF 1222
0301	Robert Graham MW 11:00am - 11:50am	Seats (Total: 20) KNI 1206
0401	Riva Riley MW 2:00pm - 2:50pm	Seats (Total: 20) ATL 2316

0501	Samuel Holley-Kline MW 3:00pm - 3:50pm	Seats (Total: 20) HBK 0108
0601	Daniel Zipp, Ingrid Satelmajer MW 4:00pm - 4:50pm	Seats (Total: 20) LEF 1221
0701	Jordan Johnson, Ingrid Satelmajer MW 11:00am - 11:50am	Seats (Total: 20) KNI 1103
0801	Rebecca Jones, Ingrid Satelmajer TuTh 10:00am - 10:50am	Seats (Total: 20) LEF 1221
0901	Alexandra Harlig TuTh 11:00am - 11:50am	Seats (Total: 20) BPS 1232
1001	Yupeng Jiao TuTh 2:00pm - 2:50pm	Seats (Total: 20) HBK 0125
1101	Brynne McBryde, Ingrid Satelmajer TuTh 3:00pm - 3:50pm	Seats (Total: 20) JMZ 2123
1201	Katherine Lieder TuTh 4:00pm - 4:50pm	Seats (Total: 20) JMZ 2123

HNUH398P **Federal and Global Experiential Learning**

(Perm req)

Restriction: Permission of instructor. Repeatable to 9 credits if content differs. Cross-listed with: FGSM398. Credit only granted for: FGSM398 or HNUH398P.

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

Cross-listed with FGSM398. Credit only granted for FGSM398 or HNUH398P.

0101	Joan Burton, Jayakumar Arasan, Sabrina Labold M 6:30pm - 7:40pm	Seats (Total: 120) ESJ 1202
0201	Joan Burton, Jayakumar Arasan, Sabrina Labold Th 6:30pm - 7:40pm	Seats (Total: 120) ESJ 1202

HONR231 **London and the British Empire**

Cross-listed with: HIST231. Credit only granted for: HIST219K, HONR249B, HONR231, or HIST231. Formerly: HIST219K.

Focuses on the people, places, and policies that shaped the development of the British Empire, the single largest trans-cultural phenomenon in the world since 1500. Students examine how ideology, migration, technology and resistance shaped the expansion and eventual retrenchment of British imperial power in the Atlantic world and the Indian sub-continent. With the nation's capital as our classroom, students explore the complex workings and legacies of the British Empire from the perspective of its nerve center. The curriculum illuminates the experience of empire for subjects both in the colonies and the metropole and will pay particular attention to the maritime origins of empire, the lives of black Britons and the abolition of slavery, and the rise and fall of the British in India.

Contact department for information to register for this course.

HONR348L **Advanced Honors Seminar; Literature of London**

A series of seminars, often interdisciplinary and sometimes team taught. The subjects will vary from semester to semester.

Contact department for information to register for this course.

HONR349V **Honors Colloquium; Dubai: Global Immersion Experience**

A series of seminars, often interdisciplinary and sometimes team taught. Subjects may vary.

Contact department for information to register for this course.

HONR358C **Honors Practicum**

(Perm req)

For student section leaders of HONR100 or HONR200.

Contact department for information to register for this course.

HONR379W **Maryland General Assembly Writing Internship**

(Perm req)

Prerequisite: ENGL381 or HONR368A. Restriction: Minimum cumulative GPA of 3.0; and must have earned a minimum of 60 credits; and must be admitted to the MGA program. Cross-listed with: ENGL388M. Credit only granted for: ENGL388M or HONR379W.

Experiential learning at the Maryland General Assembly (early January through early April). Interns participate in standard office tasks, research legislative issues, and draft legislative texts such as constituent letters, notes on bills, newsletters, policy memos, and testimony. Specific assignments vary according to the host legislator's needs and the intern's schedule.

Prerequisite: permission of department and completion of either ENGL381 or HONR368A. Cross-listed with ENGL388M. Credit granted for ENGL388M or HONR379W.

Click here for more information.

0101	Thomas Lowderbaugh Contact instructor or department for details.	Seats (Total: 15)

IDEA Academy for Innovation & Entrepreneurship Spring 2024

IDEA201 **Innovation Tools & Mindsets**

Credit only granted for: IDEA201 or IDEA258A. Formerly: IDEA258A.

Challenges assumptions around what is needed to innovate and who innovators are. Through hands-on activities and reflection, you'll be invited to step out of your comfort zone, think and work in new ways, and gain confidence in your creative abilities.

0101	Mira Azarm, Mona Thompson Tu 2:30pm - 3:45pm	Seats (Total: 30) ESJ 2101
0102	Brooke Smith Class time/details on ELMs	Seats (Total: 60) ONLINE
0103	Brooke Smith Class time/details on ELMs	Seats (Total: 60) ONLINE
0104	Brooke Smith Class time/details on ELMs	Seats (Total: 60) ONLINE

IDEA258U **Special Topics in Innovation; Introduction to UI/UX Design**

Special topics in innovation

What does "User Experience" mean? It was a term coined by cognitive psychologist and designer Don Norman in the 1990s on the cusp of the new digital era; however, the field in practice has existed long before that. Unfortunately, due to its over use and misuse, the pure concept ofUX hasbecome lost in the weeds and details of all of its components and methods. In this course, we will take a deep look at the true meaning of UX as simply "a user's experience" and what that means for you as both a designer and a user. You will learn about core UX principles and methodologies from both an academic and practical standpoint and be challenged to apply what you learn in classroom workshops and assignments. Finally, you will be asked to think both inside and outside the bounds of technology to find innovative solutions to real world design problems.

0101	Mira Azarm, Katherine-Aria Close M 12:30pm - 2:00pm	Seats (Total: 30) ESJ 2101

IDEA311 **Design Your Purpose**

Credit only granted for: IDEA311 or IDEA379A. Formerly: IDEA379A.

What do you want to do once you graduate? What about with your life? These are the big questions we begin to tackle in this course. Use design methods and mindsets to explore your personal and professional development goals and explore potential career paths. Using empathy, brainstorming, and prototyping techniques, you'll imagine potential futures for yourself and test them to see if they are a good fit for you.

0101	Brooke Smith, Christina Hnatov	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

IDEA468 **Design Thinking Studio**

Work on a semester-long project to refine your skills in design thinking and other innovation processes. With a particular emphasis on core design abilities such as navigating ambiguity, learning from others, synthesizing information, and experimenting rapidly, the project will require you to engage with real stakeholders within the surrounding community on a topic that's timely and relevant. You'll develop multiple prototypes to test with stakeholders that will allow you to continuously learn and refine your ideas.

Restriction: Permission from the Academy for Innovation and Entrepreneurship.

0101	Mira Azarm, Christina Hnatov	Seats (Total: 5)
	Contact instructor or department for details.	

IDEA498 **Independent Study: Experiments in Innovation**

(Perm req)

Apply design thinking and/or lean startup concepts to your own real-world project, which may involve a partner organization. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

0101	Mira Azarm	Seats (Total: 3)
	Contact instructor or department for details.	

IDEA698 **Independent Study in Design Thinking**

(Perm req)

Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specificmilestones and deliverables. There will be regular coaching froman Academy for Innovation and Entrepreneurship team member. Restriction:Permission required by the Academy for Innovation and Entreurship

0101	Mira Azarm, Brooke Smith	Seats (Total: 6)
	Contact instructor or department for details.	

IMDM Immersive Media Design Spring 2024

IMDM101 **Introduction to Immersive Media**

Credit only granted for: CMSC101 or IMDM101. Formerly: CMSC101.

An introduction to the basic practices, concepts and issues in Immersive Media Design. Conducted as a hybrid studio/lecture course, students will work collaboratively in teams to complete both research and practical projects, including surveying current artists and practice in immersive media; completing studio-based interactive projects that fuse computational media into physical objects; and working in teams to ideate and execute large scale, immersive media works.

0101	Mollye Bendell	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	AVW 3258
0201	Stevens Miller	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AVW 3258
0301	Myungin Lee	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	AVW 3258

IMDM127 **Creative Coding for Digital Media**

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: IMDM127 or CMSC125.

An introduction to the principles of Computer Science supported by exercises in computer programming with an emphasis on creative coding, algorithmic image creation and manipulation, and interactive experiences. Students will make use of both exploratory coding approaches, and problem/solution-driven approaches, to design and implement software with visual and auditory output. The course also includes an introduction to a wide variety of issues relating to computer science and software, including software design and construction, problem-solving, and fundamental questions about the nature, limitations, and ethical use of computers and algorithms. It also explores how creativity tools can be used and as well as providing some insight into how they are implemented. The course is targeted to students with a broad diversity in backgrounds and interests. No prerequisites are assumed beyond high school algebra.

0101	Roger Eastman	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	CSI 1121

IMDM150 **Digital Media Theory and Culture**

Restriction: Must be in the Immersive Media Design program; or permission of IMDM - Immersive Media Design program. Credit only granted for: ARTT150 or IMDM150.

An introduction to the fundamental structures and themes of digital culture in contemporary society. This course will provide you with a theoretical grounding in which to understand the current landscape of digital media culture, design and art. As an introductory course for the Immersive Media Design major, the focus will be on contextualizing immersive digital media such as virtual reality, augmented reality, immersive projection, and electronic art installation through reading, writing and discussion. Students will have opportunities to experience a range of these technologies first hand.

0101	Cy Keener MW 10:00am - 11:15am	Seats (Total: 45) ANS 0412

IMDM290 **Collaborative Studio I: Image + Time**

Prerequisite: Minimum grade of C- in IMDM227 and ARTT255. Restriction: Restricted to Immersive Media Design Students.

Concept-driven and team-based collaborative studio course in which students work together in groups to create intellectually engaging and technically innovative works of Immersive Media Design. Student teams will combine their skill sets, technical and artistic, to produce creative works that combine image manipulation, generative images, creation, image and animation output technologies, video and audio recording, manipulation and production, and other forms of digital media assets that can be integrated into immersive media pipelines such as virtual reality, augmented reality, and other interactive forms. In working collaboratively, student teams will use team and assest management processes and tools that reflects contemporary practices in the fields of art, design, software, and the creative industries.

0101	Myungin Lee TuTh 12:30pm - 1:45pm	Seats (Total: 25) AVW 3258
0201	Myungin Lee TuTh 9:30am - 10:45am	Seats (Total: 25) AVW 3258

IMDM390 **Collaborative Studio II: Experiential Computing**

Prerequisite: Minimum grade of C- in IMDM290. Restriction: Must be in the Immersive Media Design program or Permission of IMDM - Immersive Media Design program.

A concept-driven, team-based collaborative studio course connecting inquiry, knowledge, and practice. Students will work together to create experiential works of immersive media. This course moves beyond the technical applications of software and emphasizes innovative thinking, social engagement, and problem-solving. Student teams will draw upon their unique skills to create works that participants can inhabit in a way that can only be achieved using new and emerging technologies. The process starts with small-scale "sketch" creation and evolves into larger-scale compelling works of immersive media. Teams will need to organize research methods and goals, engage in production, and explore how to communicate, display, and document their work. As projects develop, feedback will be provided through periodic presentations, peer-critique sessions, and instructor reviews.

0101	Yael Inbar F 1:00pm - 3:30pm	Seats (Total: 30) AVW 3258

IMDM491 **Senior Capstone II**

Prerequisite: Minimum grade of C- in IMDM490.

The second course in a two-semester senior capstone sequence. During IMDM491 students will continue to design, prototype and realize a large-scale immersive media design project intended for public exhibition. In doing so, students will adapt and improve their project in response to critical feedback from instructors and peers, to find an exhibition venue, and to market the project through public relations, social networking, and other strategies of promotion.

0101	Evan Golub, Ian McDermott	Seats (Total: 30)
	MW 2:00pm - 3:15pm	AVW 3258

IMDM498D **Special Topics in Immersive Media; Motion Capture for Mixed Reality Performance**

(Perm req)

Special topics in current and emerging areas of Immersive Media Design.

Prerequisites: A minimum grade of C- in IMDM290. Restriction: Permission of department. This class will introduce students to creative and technical application for motion capture. Using analog, inertial, optical, and AI systems, students will engage in collaborative projects that span digital and physical spaces. Students will also engage with the history of mocap development, as well as the aesthetics and ethics surrounding digital motion.

0101	Kate Ladenheim	Seats (Total: 8)
	TuTh 10:00am - 11:50am	IRB 0110

IMDM498E **Special Topics in Immersive Media; Creative Experiments with AI**

Special topics in current and emerging areas of Immersive Media Design.

Prerequisite: ARTT370 or Permission of IMDM-Immersive Media Design Program. Credit only granted for ARTT489E or IMDM498E. In this course, students will use the most advanced forms of generative AI for artistic creation and exploration. The course will be a combination of lecture, workshops, studio time, and occasional class visits from Areas explored include: Generative AI - Imagery, video art, filmmaking, sound production, and literature. Tools used include Midjourney, Stable Diffusion, Runway, Dreambooth, Photoshop, Ableton, and Chat GPT.

0101	Ari Melenciano	Seats (Total: 8)	
	TuTh 9:00am - 11:30am	ASY 3304	Lab

IMDM499A **Independent Undergraduate Research**

Directed research under the supervision of a faculty member in immersive media. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper on their research.

Contact department for information to register for this course.

IMMR319D **Special Topics in Immigration and Migration Studies; Black Immigrants: Challenges and Impacts**

Thematic exploration of a topic in immigration or migration studies with emphasis on understanding how the movement of people is relevant in the contemporary world.

Cross-listed with AASP398B. Credit only granted for AASP398B or IMMR319D. How does immigration affect Black communities in the United States? How are foreign Black affected by living in the United States? Students will learn about: US history of immigration policy; pull and push factors driving Black migration; comparisons in socioeconomic outcomes between foreign and native Blacks; and differences between 1st and 2nd generation Black immigrants.

0101	Beka Guluma	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	KEY 0100

IMMR394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Cross-listed with: AAST394, AMST324. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Joan Hong	Seats (Total: 30)
	MW 3:00pm - 4:15pm	TWS 1107

IMMR399 **Internship in Immigration/Migration Studies**

(Perm req)

Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

Restriction: Permission of IMMR department; and junior standing or higher. The Immigration and Migration Studies Internship program. Pre-professional experience in migration studies research, analysis, and writing in a variety of work settings. Contact department for information to register at globalmigration@umd.edu.

0101	Katarina Keane	Seats (Total: 1)
	Contact instructor or department for details.	

IMMR400 **Vital Voices: Oral Histories of the Immigrant Experience**

Recommended: HIST222; or IMMR200. Credit only granted for: HIST428N, IMMR400, THET428I, or THET498V. Formerly: HIST428N.

An exploration of the dynamic subject of U.S. immigrant experience through the scope of individual immigrant life stories in a global context. Course will include an overview of U.S. and global immigration patterns and an introduction to the practice of oral history.

0101	Colleen Woods MW 2:00pm - 3:15pm	Seats (Total: 20) TLF 1101	

INAG Institute of Applied Agriculture Spring 2024

INAG104 **Quantitative Applications in Agriculture**

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department. The development of problem-solving skills often used in the everyday world of work. Problems involving soils, fertilizers, seeding rates, feed mixtures, and business finance. Development of mathematical skills in solving basic equations, the use of percent and ratios, and calculating various linear and cubic measurements.

0101	Kenneth Ingram, Geoffrey Rinehart MWF 9:00am - 9:50am	Seats (Total: 20) JUL 1123	

INAG105 **Soils and Fertilizers**

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department.

Soils and Fertilizers is an introductory course for students entering careers related to applied agricultural production. The course is divided into three subject areas: soil properties, soil fertility, and environmental concerns of using soils for agricultural production. Emphasis is placed upon the characteristics of Maryland soils which are similar to the soils in the mid-Atlantic region. The importance of nutrient management and non-point source pollution of the Chesapeake Bay are covered in the course.

Restriction: Must be a major in AGNR-College of Agriculture & Natural Resources. Others by permission of AGNR-institute of Applied Agriculture department.

0101	Kenneth Ingram MW 10:00am - 10:50am F 1:00pm - 2:50pm	Seats (Total: 14) JUL 1123 JUL 1111	 Lab
0102	Kenneth Ingram MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 14) JUL 1123 JUL 1111	 Lab

INAG106 **Pesticide Use and Safety**

Restriction: Must be in a major in AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program or to students in the College of Agriculture and Natural Resources (AGNR).

An overview of pesticide use and safety. Topics include environmental protection, labeling, personal safety, first aid, formulation and chemistry, equipment, disposal, storage, record-keeping and liability. The course prepares students to take the Maryland State test for a private applicator's license.

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Ronald Myers W 3:00pm - 4:50pm	Seats (Total: 25) JUL 1123

INAG110 **Oral Communication**

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0101	Eric Dunning MWF 8:00am - 8:50am	Seats (Total: 19) ATL 0201
0201	Chelsea Mays-Williams MWF 8:00am - 8:50am	Seats (Total: 19) CHE 2116
0301	Robert Ballenger MWF 9:00am - 9:50am	Seats (Total: 19) CHE 2140
0401	Eric Dunning MWF 9:00am - 9:50am	Seats (Total: 19) ATL 0201
0501	Chelsea Mays-Williams MWF 9:00am - 9:50am	Seats (Total: 19) CHE 2116
0701	Chelsea Mays-Williams MWF 10:00am - 10:50am	Seats (Total: 19) CHE 2116
0801	Robert Ballenger MWF 11:00am - 11:50am	Seats (Total: 19) CHE 2140

0901	Lori Sefton MWF 11:00am - 11:50am	Seats (Total: 19) HBK 1108
1001	David Gormong MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1158
1101	Eric Dunning MWF 10:00am - 10:50am	Seats (Total: 19) ATL 0201
1201	George Kurtzweil MWF 12:00pm - 12:50pm	Seats (Total: 19) TLF 0110
1301	Lori Sefton MWF 12:00pm - 12:50pm	Seats (Total: 19) HBK 1108
1401	David Gormong MWF 12:00pm - 12:50pm	Seats (Total: 19) PLS 1158
1501	David Gormong MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1158
1601	Samuel Rubin MWF 1:00pm - 1:50pm	Seats (Total: 19) CHE 2140
1701	George Kurtzweil MWF 1:00pm - 1:50pm	Seats (Total: 19) TLF 0110
1801	Lori Sefton MWF 2:00pm - 2:50pm	Seats (Total: 19) PLS 1146
1901	George Kurtzweil MWF 2:00pm - 2:50pm	Seats (Total: 19) TLF 0110
2001	Samuel Rubin MWF 2:00pm - 2:50pm	Seats (Total: 19) CHE 2140
2101	Amy Fisher M 3:00pm - 4:15pm W 3:00pm - 4:15pm	Seats (Total: 19) ONLINE PLS 1115

2201	Amy Fisher M 6:00pm - 8:50pm	Seats (Total: 19) PLS 1164
2301	Amy Fisher W 6:00pm - 8:50pm	Seats (Total: 19) PLS 1164
2401	Chelsea Mays-Williams TuTh 8:00am - 9:15am	Seats (Total: 19) CHE 2116
2501	Eric Dunning TuTh 8:00am - 9:15am	Seats (Total: 19) ATL 0201
2601	Chelsea Mays-Williams TuTh 9:30am - 10:45am	Seats (Total: 19) CHE 2116
2701	Eric Dunning TuTh 9:30am - 10:45am	Seats (Total: 19) ATL 0201
2801	Lori Sefton TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1172
2901	Lori Sefton TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1172
3001	David Gormong TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1168
3101	Robert Ballenger TuTh 11:00am - 12:15pm	Seats (Total: 19) CHE 2140
3201	Robert Ballenger TuTh 12:30pm - 1:45pm	Seats (Total: 19) CHE 2140
3301	George Kurtzweil TuTh 12:30pm - 1:45pm	Seats (Total: 19) TLF 0110
3401	David Gormong TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1168
3501	George Kurtzweil TuTh 2:00pm - 3:15pm	Seats (Total: 19) TLF 0110

3601	Amy Fisher Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) PLS 1172 ONLINE
3701	Samuel Rubin TuTh 2:00pm - 3:15pm	Seats (Total: 19) CHE 2140
3801	Samuel Rubin TuTh 3:30pm - 4:45pm	Seats (Total: 19) CHE 2140
3901	Amy Fisher Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 19) PLS 1172 ONLINE
4001	Samuel Rubin TuTh 5:00pm - 6:15pm	Seats (Total: 19) CHE 2140

INAG110S **Oral Communication**

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0601	Robert Ballenger MWF 10:00am - 10:50am	Seats (Total: 19) CHE 2140

INAG131 **Introduction to Agricultural Policy and Communication**

Restriction: Must be a student in the Institute of Applied Agriculture; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department.

Introduction to Agricultural Policy and Communication equips students with the knowledge and skills needed to engage in real-world communication around timely issues in agriculture. This course covers basics of United States government and the policymaking process, current and historical policy issues in agriculture, advocacy communication strategies and tactics, and careers in policy and advocacy. This course focuses on practical skills application, as well as exposure to government and advocacy work in action, including field trips and guest speakers. Throughout the course, students will learn and practice communication methods both individually and in team-directed agriculture-related projects.

0101	Meredith Epstein MWF 1:00pm - 1:50pm	Seats (Total: 25) JUL 1123

INAG199 **Special Problems**

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 5)
0201	Meredith Epstein Contact instructor or department for details.	Seats (Total: 5)
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 5)
0401	Dane Grossnickle Contact instructor or department for details.	Seats (Total: 5)
0501	Heather McHale Contact instructor or department for details.	Seats (Total: 5)
0601	Thomas Mazzone Contact instructor or department for details.	Seats (Total: 5)

INAG199C **Special Problems; AgriScience**

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department.

0101	Heather McHale Contact instructor or department for details.	Seats (Total: 5)

INAG199E **Special Problems; Professional Horticulture**

Prerequisite: Only open to IAA students who have successfully completed the approved CPH program of study with an unweighted cumulative grade point average of 3.0 or higher for all completed CPH courses as noted on the official high school transcript, and passed the student CPH certification exam administered by the Maryland Nursery, Landscape and Greenhouse Association, Inc. (MNLGA).

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

INAG204 **Agricultural Business Management**

Recommended: INAG102. Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. May not count toward any BMGT major or minor requirement.

This course integrates various concepts related to managing a profitable agricultural business. Topics include business management and decision making, preparing a business plan, financial analysis and budgeting, risk and investment management, and small business taxes, among others. Students will gain relevant knowledge and skills as they complete the comprehensive business plan for successfully managing an agricultural business.

0101	Dane Grossnickle MWF 12:00pm - 12:50pm	Seats (Total: 30) JUL 1123
0102	Dane Grossnickle MWF 2:00pm - 2:50pm	Seats (Total: 30) JUL 1123

INAG205 **Analyzing Alternative Enterprises**

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture.

This course identifies and analyzes alternative crops, livestock, and other agricultural business enterprises. Students assess sustainability, geographic adaptability and potential profitability of businesses through lectures, class projects, and presentations from farmers, entrepreneurs, and managers engaged in alternative enterprises. Topics may include value added approaches, organic crop production, and recreational agricultural pursuits.

0101	Meredith Epstein TuTh 11:00am - 12:15pm	Seats (Total: 25) JUL 1123

INAG206 **Agricultural Business Law**

Restriction: Students at the Institute of Applied Agriculture (IAA); or students at the College of Agriculture and Natural Resources (AGNR); or permission may be granted to other students based on available space. Additional information: Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

This course introduces various legal concepts and their relationships to agricultural business and transactions. Topics include torts, criminal law, contracts, promissory notes, property, partnerships, business entities, employment, and bankruptcy, among others. Students will gain a general understanding of the legal system that will help them manage and/or operate profitable agricultural businesses.

0101	Heather McHale, Michael Grady W 5:30pm - 8:30pm	Seats (Total: 30) JUL 1123

INAG207 **Power and Machinery**

Prerequisite: INAG250 or PLSC204. Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority will be given to IAA students and permission will be granted to AGNR students and others on a space available basis.

The basic principles of compact equipment management, including selection, maintenance, operation, adjustment and troubleshooting of agricultural machinery and power units. Covers methods of power development, measurement, and transmission, through power trains both mechanical and hydraulic. Each student will complete a systematic disassembly, analysis, diagnosis and reassembly of a small engine.

0101	Thomas Mazzone	Seats (Total: 8)
	Tu 9:00am - 10:50am	ANS 0504
	Th 8:00am - 10:50am	ANS 0504

INAG235 Irrigation and Drainage

Restriction: Permission of instructor. Credit only granted for: INAG235, PLSC235 or PLSC489I. Formerly: PLSC489I. Additional information: Priority enrollment will be given to IAA and PLSC majors. By permission for available seats.

An overview of U.S. and state water doctrines and plant water use rates. Irrigation systems for residential and athletic field use will be discussed covering such topics as hydraulics, sprinkler spacing, pipe selection and sizing, pumps, controllers, valves, and irrigation trouble shooting. Surface and subsurface drainage for turfgrass sites will also be covered.

0101	Geoffrey Rinehart	Seats (Total: 10)
	TuTh 2:00pm - 4:00pm	JUL 1123
	Open to AGNR and IAA students only.	

INAG244 Herbaceous Plants

Restriction: Must be in a major within the AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Credit only granted for: INAG244 or PLSC244.

Herbaceous plants are integral components of residential and commercial landscapes. Students will become familiar with 250 annual and perennial plants. The emphasis will be on plant management requirements and seasonal variation in the landscape.

0101	Kenneth Ingram	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JUL 1111

INAG248 Topics in Sustainable Agriculture

Through readings, class discussions, and guest speakers, this one-credit seminar course exposes students to current trends, concerns and research in sustainable agriculture. It allows students to explore various interest areas and discuss a variety of topics as they relate to sustainable practices.

Students must be available to meet for three field trips -- dates are not yet confirmed.

0101	Meredith Epstein	Seats (Total: 25)
	Tu 6:00pm - 7:50pm	JUL 1123

INAG250 **Fundamentals of Agricultural Mechanics**

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources OR Permission of AGNR-Institute of Applied Agriculture Department. Credit only granted for: PLSC204 or INAG250. Additional information: Priority given to IAA majors and AGNR students whose major requires this course. Permission will be granted to other students on seats available basis.

A comprehensive course that teaches the fundamentals of agricultural related mechanics. Lecture and lab exercises will cover the broad range of topics associated with agricultural mechanics including electricity, plumbing, welding processes, and wood and metal working applications. Emphasis will be given to the design and installation of electrical circuits. It will also include project planning and implementation including development of safety protocols for each area of study and introduction of GPS equipment and software for survey data collection.

Students must pay a $75 course materials fee.

0101	Thomas Mazzone	Seats (Total: 5)
	MW 2:00pm - 5:00pm	ANS 0504

INAG272 **Principles of Arboriculture**

Cross-listed with: PLSC272. Credit only granted for: INAG272 or PLSC272.

The establishment and maintenance of healthy trees in an urban setting will be studied. Lectures will focus on the environmental constraints to tree development in the city, and the role of physiological processes in regulating tree vigor. Laboratory exercises will cover the unique aspects of urban soils, tree valuation procedures, pruning and training, and supervised climbing.

0101	Kenneth Ingram	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JUL 1123

INAG299B **Supervised Work Experience**

0101	Geoffrey Rinehart	Seats (Total: 5)
	Contact instructor or department for details.	

INFM Information Management Spring 2024

INFM605 **Users and Use Context**

Use of information by individuals. Nature of information. Information behavior and mental models. Characteristics of problems, task analysis, problem solving, and decision making. Methods for determining information behavior and user needs. Information access. Information technology as a tool in information use.

IM01	Chad Doran	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INFM612 **Management Concepts and Principles for Information Professionals**

Restriction: Permission of INFO-College of Information Studies.

Key aspects of management - focusing on planning, organizing, leading and controlling. The evolution of management, innovative management for the changing world, management styles and leadership, managerial planning, goal setting and decision making. Ethical issues, designing adaptive organizations responding to change, global environment, diversity, and utilizing the appropriate technology to provide effective management of information programs and services.

IM01	Waqas Shah	Seats (Total: 40)
	Th 6:00pm - 8:45pm	HBK 0115

INFM719 **Independent Study**

(Perm req)

Intensive individual study under faculty supervision.

Contact department for information to register for this course.

INFM737 **Information Management Capstone Experience**

Prerequisite: INFM736; and must have earned a minimum of 27 credits in the MIM Program. Or permission of instructor. Restriction: Must be in Information Management (Master's) program; and permission of INFO-College of Information Studies.

The Information Management Capstone Experience I and II are the culminating experience of the Master of Information Management program, taken in the students final two semesters. The capstone experience provide students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their MIM course work while working in a real world Information Management project. These courses must be taken in succession.

IM01	David Loshin	Seats (Total: 40)
	M 6:00pm - 8:45pm	HBK 0302J

INST Information Studies Spring 2024

INST101 **Bits and Bytes of Computer and Information Sciences**

Restriction: For first time freshmen and first time transfer students; or permission of CMNS-Computer Science department. Cross-listed with: CMSC100. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0201	Noah Owens F 12:00pm - 12:50pm	Seats (Total: 40) IRB 2207	

INST104 **Design Across Campus**

What is design, who does it, and how is it done? There is no one answer to this question--it depends on who you ask. The answers to these questions vary across disciplines and across the University campus. This course, designed with modules from contributors in UMD programs including Information Studies, Human-Computer Interaction, Graphic Design, Immersive Media Arts, Journalism, Architecture, Landscape Architecture, Engineering, and Policy, will introduce students to the goals and values, approaches, skills, and practices of diverse fields of design. It will enable students to identify grand challenges in design and serve as a sorting hat to help students find a design practice that matches their own values, approaches, skills and goals.

0101	Katie Shilton Tu 2:00pm - 4:45pm	Seats (Total: 165) ONLINE	
0201	Marilyn Iriarte Santacruz MW 3:00pm - 4:15pm	Seats (Total: 100) TWS 0320	

INST123 **Databases for All**

Restriction: Must not have completed or be currently taking INST327 or BMGT402.

An introduction to relational databases for students with no previous programming experience. Provides a means for students of diverse backgrounds to successfully learn how to store, retrieve, and maintain data in relational databases. Topics include a brief comparison of database systems with an emphasis on relational databases, fundamental relational database concepts, and data types. Includes technical approaches to accessing information stored in relational databases.

0101	Donal Heidenblad Tu 12:30pm - 1:45pm Th 2:00pm - 3:15pm	Seats (Total: 50) ESJ 2204 CCC 1205	Discussion
0102	Donal Heidenblad Tu 12:30pm - 1:45pm Th 3:00pm - 4:15pm	Seats (Total: 49) ESJ 2204 HBK 0103	Discussion
0103	Donal Heidenblad Tu 12:30pm - 1:45pm Th 4:00pm - 5:15pm	Seats (Total: 50) ESJ 2204 ATL 1113	Discussion

INST126 **Introduction to Programming for Information Science**

Prerequisite: Math placement of STAT100 or higher. Restriction: Must not have completed INST326; and must be in Information Science, Technology and Information Design, or Social Data Science programs.

An introduction to computer programming for students with very limited or no previous programming experience. Topics include fundamental programming concepts such as variables, data types, assignments, arrays, conditionals, loops, functions, and I/O operations.

0101	Scott Jackson TuTh 2:00pm - 3:15pm	Seats (Total: 80) MCB 1207
0102	Giovanni Luca Ciampaglia TuTh 11:00am - 12:15pm	Seats (Total: 80) JMZ 0220
0103	Scott Jackson TuTh 3:30pm - 4:45pm	Seats (Total: 80) MCB 1207
0104	Joel Chan MWF 9:00am - 9:50am	Seats (Total: 80) CHE 2108
0105	Elia Shahbazi MWF 2:00pm - 2:50pm	Seats (Total: 80) TWS 0320

INST152 **"Fake Checking": Battling Misinformation and Disinformation in the Real World**

Examining the phenomenon of "fake news" using the principles of information literacy, students will develop their skills in locating, analyzing, and evaluating different information sources -- in the classroom, in their personal lives, and in the workplace.

0101	Patricia Bunnell TuTh 11:00am - 12:15pm	Seats (Total: 150) ONLINE

INST154 **Apollo at 50**

Examines Apollo mission, one of the greatest engineering accomplishments of all time, in which Neil Armstrong walked on the moon. Since the mission, people have asked: if we can land on the moon, why can't we eliminate poverty? Why can't we cure cancer? Why can't we prevent global warming? Asks what were the social, political, financial, scientific, engineering, operational, and human aspects of the Apollo program that came together to make the moon landings possible?

0101	Dennis Frezzo TuTh 5:00pm - 6:15pm	Seats (Total: 92) IRB 1116

INST155 **Social Networking**

Credit only granted for: INFM289I or INST155. Formerly: INFM289I.

Introduces methods for analyzing and understanding how people use social media - social networking websites, blogging and microblogging, and other forms of online interaction and content generation - and their societal implications. Introduces students to the science and social science of network analysis. Through real world examples, including analysis of their own social networks, students develop skills for describing and understanding the patterns and usage of services like Facebook, Twitter, YouTube, and others.

0101	Hananya Cohen	Seats (Total: 150)
	Class time/details on ELMs	ONLINE

INST156 **How NASA Sees the Earth**

Cross-listed with: GEOG156. Credit only granted for: GEOG156 or INST156.

The world of Earth science data is complex and can be overwhelming with a wide range of data sources and formats, hefty downloads and the need for complicated analytical tools. To make use of enormous volumes of available data and geoinformation products, one has to know where and how to search and obtain the data, how to analyze the data, and how to extract useful information and knowledge. In this course, you will learn about the state-of-the-art Web-based tools that allow you to efficiently display and analyze a large number of datasets in a way many professionals working in the Earth science domain would. You will learn how to visualize multiple Earth science datasets produced by NASA in a variety of ways directly on the Internet, without the need to download, manage and store them. Students will be introduced to comprehensive functions to analyze the data and generate customized maps, animations, multi-variable correlations, regional subsetting, etc.

0101	Sergii Skakun	Seats (Total: 50)
	TuTh 9:30am - 10:45am	TYD 0117

INST201 **Introduction to Information Science**

Credit only granted for: INST201 or INST301. Formerly: INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

0101	Diana Bridgett, Dustin Smith	Seats (Total: 50)	
	MW 11:00am - 11:50am F 10:00am - 10:50am	ESJ 2204 CCC 1111	Discussion
0102	Diana Bridgett, Dustin Smith	Seats (Total: 50)	
	MW 11:00am - 11:50am F 11:00am - 11:50am	ESJ 2204 ATL 2324	Discussion

0103	Diana Bridgett, Dustin Smith MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 50) ESJ 2204 ATL 1113	Discussion
0201	Madeline Georgevich TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 50) PHY 1412 CCC 1111	Discussion
0202	Madeline Georgevich TuTh 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 50) PHY 1412 MCB 1207	Discussion
0203	Madeline Georgevich TuTh 1:00pm - 1:50pm F 3:00pm - 3:50pm	Seats (Total: 50) PHY 1412 PLS 1130	Discussion
0301	Nicole Miller TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 50) MMH 1400 KEY 0103	Discussion
0302	Nicole Miller TuTh 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 50) MMH 1400 KEY 0103	Discussion
0303	Nicole Miller TuTh 2:00pm - 2:50pm F 4:00pm - 4:50pm	Seats (Total: 50) MMH 1400 KEY 0103	Discussion
0401	Chad Doran M 5:00pm - 6:30pm Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 49) ONLINE ONLINE HBK 0103	Discussion
0402	Chad Doran M 5:00pm - 6:30pm Class time/details on ELMs W 4:00pm - 4:50pm	Seats (Total: 49) ONLINE ONLINE HBK 0103	Discussion
0403	Chad Doran M 5:00pm - 6:30pm Class time/details on ELMs W 5:00pm - 5:50pm	Seats (Total: 49) ONLINE ONLINE HBK 0103	Discussion

INST204 **Designing Fair Systems**

Credit only granted for: INST208D or INST204. Formerly: INST208D.

Reviews how specific values are built into different automated decision-making systems as an inevitable result of constructing mechanisms meant to produce specific outcomes. These values create differential outcomes for the different people enmeshed in these systems, but both these values and these systems can be changed to support different values and different outcomes. The class serves as an introduction to the emerging field of algorithmic bias that bridges the disciplines of information science, computer science, law, policy, philosophy, sociology, urban planning, and others.

0101	Wayne Lutters	Seats (Total: 75)
	Tu 2:00pm - 3:15pm	ESJ 1202
	Th 2:00pm - 3:15pm	CSI 3117

INST208B **Special Topics in Information Studies; Voice Tech Today**

Covers special topics in information studies.

0101	Galina Reitz	Seats (Total: 60)
	M 11:00am - 12:15pm	HJP 2242
	W 11:00am - 12:15pm	ONLINE

INST208N **Special Topics in Information Studies; Creative Coding**

Covers special topics in information studies.

Restricted to students who have not taken INST126. This course is a gentle introduction to the Python programming language for writers and artists. The focus is on experimental writing with computers, including digital fiction and poetry. We ll also explore novel forms of collaboration with the computer, such as using an AI-generated passage of text as the seed for a more conventionally authored short story;writing a poem that contains lines and stanzas scored either ridiculous ly high or low by sentiment algorithms; and using paper rather than screens as a medium for computational display.

0101	Kari Kraus	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	HBK 0125

INST210 **The Nuts & Bolts of Getting Hired**

Restriction: Must be in the Information Science program, Technology and Information Design program, or Social Data Science program. Credit only granted for: INST208C or INST210. Formerly: INST208C.

Have you thought about finding an internship, getting a job, or starting your career? Perhaps you're confused about how to begin. Welcome to The Nuts and Bolts of Getting Hired, where you'll learn the skills necessary to develop your professional tool kit and obtain the internship or job that can help you build the career you want. This course will help you prepare for the next step in your career by exploring the following topics: Identifying your career goals, mastering the skills of crafting a professional resume, effective interviewing, strategic networking, and professional communication.

0101	Katy Lawley Class time/details on ELMs	Seats (Total: 50) ONLINE

INST227 **Fundamentals of Academic Peer Mentoring in Information Studies**

(Perm req)

Restriction: Permission of the College of Information Studies.

Students will be exposed to scholarship of teaching and learning in support of developing applied skills to support active learning as an iSchool academic peer mentor. Students will learn to effectively coach and support the performance of other people. Guided online and face-to-face participation will culminate in a portfolio of teaching activities and professional development.

0101	Donal Heidenblad, Vinya Dengre Class time/details on ELMs	Seats (Total: 15) ONLINE

INST228 **Academic Peer Mentor Experience in Information Science; Academic Peer Mentor Experience in Information Science**

(Perm req)

Students who are participating in instructional activities for undergraduate courses offered by the College of Information Studies, or by faculty members of the College through other units, can take this course to earn course credit for their AMP work.

Restriction: Permission of INFO-College of Information Studies.

0123	Donal Heidenblad Contact instructor or department for details.	Seats (Total: 10)
0126	Scott Jackson, Donal Heidenblad Contact instructor or department for details.	Seats (Total: 10)
0314	Christopher Antoun, Donal Heidenblad Contact instructor or department for details.	Seats (Total: 10)
0326	Donal Heidenblad, Zahra Farhadi, Aric Bills Contact instructor or department for details.	Seats (Total: 10)
0327	Pamela Duffy, Vedat Diker, Donal Heidenblad, Iskander Lou Contact instructor or department for details.	Seats (Total: 10)
0366	Donal Heidenblad, Jessica Vitak Contact instructor or department for details.	Seats (Total: 10)

0402	Donal Heidenblad, Galina Reitz Contact instructor or department for details.	Seats (Total: 10)	

INST309 **Independent Study in Information Science**

(Perm req)

Individual independent study of an aspect of information science, selected according to student interest and need in consultation with a member of the iSchool faculty. Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

INST311 **Information Organization**

Prerequisite: Minimum grade of C- in PSYC100 or SOCY105. Restriction: Must be in Technology and Information Design or Information Science program.

Examines the theories, concepts, and principles of information, information representation and organization, record structures, description, and classification. Topics to be covered in this course include the methods and strategies to develop systems for storage, organization, and retrieval of information in a variety of organizational and institutional settings, as well as policy, ethical, and social implications of these systems.

0201	Ryan O'Grady Class time/details on ELMs W 10:00am - 10:50am	Seats (Total: 40) ONLINE ASY 1213	Discussion
0202	Ryan O'Grady Class time/details on ELMs W 11:00am - 11:50am	Seats (Total: 40) ONLINE ASY 1213	Discussion
0203	Ryan O'Grady Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 40) ONLINE ASY 1213	Discussion
0204	Ryan O'Grady Class time/details on ELMs W 1:00pm - 1:50pm	Seats (Total: 40) ONLINE ASY 1213	Discussion
0301	Jordon Steele Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 40) ONLINE HBK 0302H	Discussion
0302	Jordon Steele Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 40) ONLINE HBK 0302H	Discussion

0303	Jordon Steele Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 40) ONLINE HBK 0302H	Discussion
0401	Katy Lawley MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 40) EGR 1202 HBK 0302J	Discussion
0402	Katy Lawley MW 12:00pm - 12:50pm Th 3:00pm - 3:50pm	Seats (Total: 40) EGR 1202 HBK 0302J	Discussion
0403	Katy Lawley MW 12:00pm - 12:50pm Th 4:00pm - 4:50pm	Seats (Total: 40) EGR 1202 HBK 0302J	Discussion
0404	Katy Lawley MW 12:00pm - 12:50pm Th 5:00pm - 5:50pm	Seats (Total: 40) EGR 1202 HBK 0302J	Discussion

INST314 **Statistics for Information Science**

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100, and MATH115 (or higher). Restriction: Must be in Information Science or Social Data Science program.

Basic concepts in statistics including measure construction, data exploration, hypothesis development, hypothesis testing, pattern identification, and statistical analysis. The course also provides an overview of commonly used data manipulation and analytic tools. Through homework assignments, projects, and in-class activities, you will practice working with these techniques and tools to create information resources that can be used in individual and organizational decision-making and problem-solving.

0101	Samantha Kemper TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 50) ESJ 1224 TYD 1101	Discussion
0102	Samantha Kemper TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 50) ESJ 1224 TYD 1101	Discussion
0103	Samantha Kemper TuTh 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 50) ESJ 1224 TYD 1101	Discussion

0104	Samantha Kemper TuTh 4:00pm - 5:15pm	Seats (Total: 75) BPS 1250	
0201	Christopher Antoun MW 2:00pm - 2:50pm Th 2:00pm - 2:50pm	Seats (Total: 50) JMZ 0220 EGR 1108	 Discussion
0202	Christopher Antoun MW 2:00pm - 2:50pm Th 3:00pm - 3:50pm	Seats (Total: 50) JMZ 0220 EGR 1108	 Discussion
0203	Christopher Antoun MW 2:00pm - 2:50pm Th 4:00pm - 4:50pm	Seats (Total: 50) JMZ 0220 ATL 2428	 Discussion

INST326 **Object-Oriented Programming for Information Science**

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program.

An introduction to programming, emphasizing understanding and implementation of applications using object-oriented techniques. Topics to be covered include program design and testing as well as implementation of programs.

0101	Zahra Farhadi TuTh 9:30am - 10:45am	Seats (Total: 75) CCC 1100	
0102	Aric Bills MWF 10:00am - 10:50am	Seats (Total: 60) ESJ 2309	
0104	Christopher Dempwolf MWF 4:00pm - 4:50pm	Seats (Total: 80) ATL 1113	
0105	Aric Bills MWF 9:00am - 9:50am	Seats (Total: 60) ESJ 2309	
0201	P Kshetry Tu 5:00pm - 6:30pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE ONLINE AJC 2119	 Discussion

0202	P Kshetry Tu 5:00pm - 6:30pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) ONLINE ONLINE AJC 2119	Discussion
0203	P Kshetry Tu 5:00pm - 6:30pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) ONLINE ONLINE AJC 2119	Discussion
0204	P Kshetry Tu 5:00pm - 6:30pm Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 30) ONLINE ONLINE AJC 2119	Discussion
0301	Matthew Patrick Tu 3:00pm - 4:45pm W 9:30am - 10:45am	Seats (Total: 40) ONLINE PLS 1119	Lab
0302	Matthew Patrick Tu 3:00pm - 4:45pm W 11:00am - 12:15pm	Seats (Total: 40) ONLINE PLS 1119	Lab
0303	Matthew Patrick Tu 3:00pm - 4:45pm W 12:30pm - 1:45pm	Seats (Total: 40) ONLINE PLS 1119	Lab

INST327 **Database Design and Modeling**

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program. Credit only granted for: INST327 or BMGT402.

Introduction to databases, the relational model, entity-relationship diagrams, user-oriented database design and normalization, and Structured Query Language (SQL). Through labs, tests, and a project, students develop both theoretical and practical knowledge of relational database systems.

0101	Pamela Duffy, Vedat Diker W 2:00pm - 2:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 50) TMH 0301 ONLINE CCC 1111	Discussion

0102	Vedat Diker, Pamela Duffy W 2:00pm - 2:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 50) TMH 0301 ONLINE ATL 2428	Discussion
0103	Pamela Duffy, Vedat Diker W 2:00pm - 2:50pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 50) TMH 0301 ONLINE ATL 1113	Discussion
0201	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 50) ESJ 2204 ONLINE PLS 1130	Discussion
0202	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 50) ESJ 2204 ONLINE ATL 1113	Discussion
0203	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 4:00pm - 4:50pm	Seats (Total: 50) ESJ 2204 ONLINE BPS 1236	Discussion
0301	Iskander Lou W 11:00am - 11:50am Class time/details on ELMs Th 1:00pm - 1:50pm	Seats (Total: 34) PLS 1140 ONLINE HBK 0302H	Discussion
0302	Iskander Lou W 11:00am - 11:50am Class time/details on ELMs Th 2:00pm - 2:50pm	Seats (Total: 33) PLS 1140 ONLINE HBK 0302H	Discussion
0303	Iskander Lou W 11:00am - 11:50am Class time/details on ELMs Th 3:00pm - 3:50pm	Seats (Total: 33) PLS 1140 ONLINE HBK 0302H	Discussion

ESG1	Pamela Duffy F 10:00am - 10:45am Class time/details on ELMs F 10:50am - 11:45am	Seats (Total: 60) BLD4 4335 ONLINE BLD4 4335	 Lab
	Restricted to students in the Information Science Program at USG.		

INST335 **Organizations, Management and Teamwork**

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in PSYC100. Restriction: Must be in Information Science program.

Examines principles, methods and types of leadership with an emphasis on goal setting, motivation, problem solving, and conflict resolution. Examines principles of developing teams and managing team projects through planning and execution, including estimating costs, managing risks, scheduling, staff and resource allocation, communication, tracking, and control. Trains students to recognize and capitalize on opportunities to use information to increase efficiency, improve performance, and support innovation within teams and organizations. Focuses on strategic use of emerging technologies and new information resources to execute information-enabled change.

0101	Susannah Paletz MW 12:00pm - 12:50pm Th 10:00am - 10:50am	Seats (Total: 30) ONLINE ATL 2330	 Discussion
0102	Susannah Paletz MW 12:00pm - 12:50pm Th 11:00am - 11:50am	Seats (Total: 30) ONLINE ATL 2330	 Discussion
0103	Susannah Paletz MW 12:00pm - 12:50pm Th 12:00pm - 12:50pm	Seats (Total: 30) ONLINE BPS 1232	 Discussion
0104	Susannah Paletz MW 12:00pm - 12:50pm Th 1:00pm - 1:50pm	Seats (Total: 30) ONLINE BPS 1232	 Discussion
0105	Susannah Paletz MW 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 30) ONLINE HBK 0123	 Discussion
0201	Tatyana Yevgrafova TuTh 10:00am - 10:50am F 8:00am - 8:50am	Seats (Total: 30) ONLINE HBK 0115	 Discussion

0202	Tatyana Yevgrafova TuTh 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 30) ONLINE HBK 0115	Discussion
0203	Tatyana Yevgrafova TuTh 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 30) ONLINE HBK 0115	Discussion
0204	Tatyana Yevgrafova TuTh 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE HBK 0115	Discussion
0205	Tatyana Yevgrafova TuTh 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 30) ONLINE HBK 0115	Discussion
0301	Alla Levin TuTh 2:00pm - 3:15pm	Seats (Total: 75) PLS 1130	
0401	Alla Levin TuTh 3:30pm - 4:45pm	Seats (Total: 120) ATL 2324	

INST341 **Introduction to Digital Curation**

Prerequisite: Must have completed with a C- or higher, or be concurrently enrolled in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Explores various dimensions and contexts for digital curation, which includes all activities involving the management, representation and preservation of both born-digital and digitized information. Focuses on opportunities, challenges and demands of every-increasing digital data and networked information infrastructure.

0101	Dina Herbert M 10:00am - 11:15am W 10:00am - 11:15am	Seats (Total: 49) HBK 0103 ONLINE	
0102	Jessica Grimmer MW 4:00pm - 5:15pm	Seats (Total: 40) HBK 0109	

INST346 **Technologies, Infrastructure and Architecture**

(Perm req)

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST326 and INST327. Restriction: Must be in the Information Science program; and must have earned a minimum of 60 credits. Credit only granted for: INST346 or BMGT405.

Examines the basic concepts of computer hardware, systems software, networking, client/server architectures, cloud computing, distributed systems, and high performance computing as applied to information rich domains. Technology and architectures will be discussed within the contexts of solving social issues, supportingscience, and conducting business operations. Current computing topics such as web environments, IoT, security, management, and policy will also be reviewed.

0101	Dennis Frezzo M 9:30am - 10:45am F 8:00am - 8:50am	Seats (Total: 40) ONLINE HBK 0302J	Discussion
0102	Dennis Frezzo M 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 40) ONLINE HBK 0302J	Discussion
0103	Dennis Frezzo M 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 40) ONLINE HBK 0302J	Discussion
0201	Dennis Frezzo M 2:00pm - 3:15pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 40) ONLINE ONLINE HBK 0302J	Discussion
0202	Dennis Frezzo M 2:00pm - 3:15pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 40) ONLINE ONLINE HBK 0302J	Discussion
0203	Dennis Frezzo M 2:00pm - 3:15pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 40) ONLINE ONLINE HBK 0302J	Discussion
0301	Donal Heidenblad Tu 9:30am - 10:45am Class time/details on ELMs Th 8:00am - 8:50am	Seats (Total: 40) SHM 2102 ONLINE HBK 0302H	Discussion

0302	Donal Heidenblad Tu 9:30am - 10:45am Class time/details on ELMs Th 9:00am - 9:50am	Seats (Total: 40) SHM 2102 ONLINE HBK 0302H	Discussion
0303	Donal Heidenblad Tu 9:30am - 10:45am Class time/details on ELMs Th 10:00am - 10:50am	Seats (Total: 40) SHM 2102 ONLINE HBK 0302H	Discussion

INST352 **Information User Needs and Assessment**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Focuses on use of information by individuals, including the theories, concepts, and principles of information, information behavior and mental models. Methods for determining information behavior and user needs, including accessibility issues will be examined and strategies for using information technology to support individual users and their specific needs will be explored.

0101	Beth St Jean MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 30) BPS 1250 HBK 0103	Discussion
0102	Beth St Jean MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 30) BPS 1250 HBK 0103	Discussion
0103	Beth St Jean MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 30) BPS 1250 HBK 0103	Discussion
0104	Beth St Jean MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 30) BPS 1250 HBK 0103	Discussion
0105	Beth St Jean MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 30) BPS 1250 HBK 0105	Discussion
0301	Miranda Downey TuTh 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 30) ONLINE CCC 1200	Discussion

0302	Miranda Downey TuTh 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 30) ONLINE CCC 1200	Discussion
0303	Miranda Downey TuTh 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) ONLINE CCC 1200	Discussion
0304	Miranda Downey TuTh 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE CCC 1200	Discussion
0305	Miranda Downey TuTh 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) ONLINE CCC 1200	Discussion
0401	Vera Rhoads Th 3:30pm - 6:15pm	Seats (Total: 70) EGR 0108	
ESG1	Galina Reitz Tu 10:00am - 12:30pm *Restricted to students in the Information Science Program at USG.*	Seats (Total: 60) BLD4 4335	

INST354 **Decision-Making for Information Science**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST314 and PSYC100. Restriction: Must be in the Information Science program.

Examines the use of information in organizational and individual decision-making, including the roles of information professionals and information systems in informed decision-making through techniques such as data analysis and regression, optimization, sensitivity analysis, decision trees, risk analysis and business simulation models.

0101	Kathy Weaver Class time/details on ELMs M 10:00am - 11:15am	Seats (Total: 100) ONLINE ATL 2324	Discussion
0201	Abdirisak Mohamed M 6:00pm - 7:15pm Class time/details on ELMs	Seats (Total: 100) ONLINE ONLINE	

ESG1	Vikas Sahasrabudhe Class time/details on ELMs *Restricted to students in the Information Science Program at USG.*	Seats (Total: 40) ONLINE	

INST362 **User-Centered Design**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- from PSYC100 or SOCY105; and minimum grade of C- in INST326 and STAT100. Restriction: Must be in the Information Science program or Technology and Information Design program; and must have earned a minimum of 60 credits.

Introduction to human-computer interaction (HCI), with a focus on how HCI connects psychology, information systems, computer science, and human factors. User-centered design and user interface implementation methods discussed include identifying user needs, understanding user behaviors, envisioning interfaces, and utilizing prototyping tools, with an emphasis on incorporating people in the design process from initial field observations to summative usability testing.

0101	Ciara Fabian MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 30) ESJ 1224 HBK 0109	Discussion
0102	Ciara Fabian MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 30) ESJ 1224 HBK 0115	Discussion
0103	Ciara Fabian MW 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 30) ESJ 1224 HBK 0109	Discussion
0104	Ciara Fabian MW 9:00am - 9:50am F 12:00pm - 12:50pm	Seats (Total: 30) ESJ 1224 HBK 0123	Discussion
0201	Rachael Bradley-Montgomery, Natalie Smith Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE HBK 0302H	Discussion
0202	Rachael Bradley-Montgomery, Natalie Smith Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) ONLINE HBK 0302H	Discussion

0203	Rachael Bradley-Montgomery, Natalie Smith Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) ONLINE HBK 0302H	Discussion
0204	Rachael Bradley-Montgomery, Natalie Smith Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 30) ONLINE HBK 0302H	Discussion
0205	Rachael Bradley-Montgomery, Natalie Smith Class time/details on ELMs F 4:00pm - 4:50pm	Seats (Total: 30) ONLINE HBK 0302H	Discussion
0301	Rachael Bradley-Montgomery Class time/details on ELMs Th 9:00am - 9:50am	Seats (Total: 40) ONLINE HBK 0109	Discussion
0302	Rachael Bradley-Montgomery Class time/details on ELMs Th 10:00am - 10:50am	Seats (Total: 40) ONLINE HBK 0109	Discussion
ESG1	Stacy Surla M 9:00am - 11:45am *Restricted to students in the Information Science Program at USG.*	Seats (Total: 60) BLD4 4335	

INST364 **Human-Centered Cybersecurity**

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in the Information Science program; or must be in the Information Risk Management, Ethics, and Privacy Minor.

Cybersecurity is fundamentally a problem of human interaction with technology, but its technical challenges are better understood than its human challenges. This course is designed to give you an overview of human interactions with cybersecurity technology, from users to system designers. Using the information gleaned in this course, you should be able to make better predictions about how people react to cybersecurity policies and tools, and how those reactions shape organizational behavior. The earlier part of the course focuses on explanations for behavior, while the later parts of the course focus more on the development and evaluation of tools for assisting people in cybersecurity.

0101	Susan Campbell TuTh 2:00pm - 3:15pm	Seats (Total: 75) ATL 1113	

0102	Padric Mylod Tu 6:00pm - 7:30pm	Seats (Total: 75) ONLINE

INST366 **Privacy, Security and Ethics for Big Data**

Prerequisite: Minimum grade of C- from INST126 or GEOG276; and minimum grade of C- in STAT100; and minimum grade of C- in one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201,GEOG202, GVPT170, PSYC100, SOCY100, or SOCY105). Restriction: Must be in the Information Science, Technology and Information Design, or Social Data Science programs; or must be in the Information Risk Management, Ethics, and Privacy Minor.

Evaluates major privacy and security questions raised by big data, Internet of things (IoT), wearables, ubiquitous sensing, social sharing platforms, and other AI-driven systems. Covers history of research ethics and considers how ethical frameworks can and should be applied to digital data.

0102	Susan Campbell TuTh 11:00am - 12:15pm	Seats (Total: 50) CCC 1111
0103	Jessica Vitak Class time/details on ELMs W 10:00am - 11:15am	Seats (Total: 80) ONLINE ATL 2400
0104	Joseph Kelly MW 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 60) HJP 2242 ONLINE
ESG1	Padric Mylod Th 9:30am - 11:00am	Seats (Total: 40) ONLINE
	Restricted to students in the Information Science Program at USG.	

INST367 **Prototyping and Development Studio**

Prerequisite: Minimum grade of C- in INST380. Restriction: Must be in the Technology and Information Design program. Credit only granted for: INST398A or INST367. Formerly: INST398A.

Covers interaction design--the process of defining products and the broad services built around them--and user experience research--how you determine what to design and how successful your design is. When interacting with systems, people build expectations and mental models of how things work, based upon their previous experience with similar products or processes, and the successful or unsuccessful nature of their interactions determines the success of your design. This course is about how to design for digital interactions that will resonate with your audiences (how the features and functions of a product get translated into something people find usable, useful, and desirable), and the research that goes on throughout that process (from contextual inquiry to evaluating the final product), with a particular emphasis on prototyping and iteration.

0101	Anat Szendro Sevilla W 3:00pm - 5:45pm	Seats (Total: 40) HBK 0302H	

INST371 **Teaching and Learning in Information Studies**

Prerequisite: Minimum grade of C- in INST201; and minimum grade of C- from PSYC100 or SOCY105. Restriction: Must be in the Information Science program or Technology and Information Design program.

Introduces students to foundational theories and practices of teaching and learning, with an emphasis on how they intersect with ideas from the Information Sciences. Covers foundational theories related to teaching and learning, social and cultural dimensions of learning, designing for learning, evaluating educational technologies, and ways of creating equitable, effective, and accessible learning experiences. Students will design learning activities for others, analyze educational tools and technologies, and explore ways to help teach others about the big ideas of Information Science.

0101	David Weintrop TuTh 12:30pm - 1:45pm	Seats (Total: 40) ARC 1103	

INST377 **Dynamic Web Applications**

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301, or BSOS233); and minimum grade of C- in INST327, STAT100, and MATH115 (or higher). Restriction: Restricted to Information Science and Social Data Science. Credit only granted for: INST377 or BMGT406.

An exploration of the basic methods and tools for developing dynamic, database-driven websites, including acquiring, installing, and running web servers, database servers, and connectability applications.

0101	Anmol Dash Class time/details on ELMs Th 9:00am - 9:50am	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0102	Anmol Dash Class time/details on ELMs Th 10:00am - 10:50am	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0103	Anmol Dash Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0104	Anmol Dash Class time/details on ELMs Th 12:00pm - 12:50pm	Seats (Total: 30) ONLINE HBK 0302J	Discussion

0105	Anmol Dash Class time/details on ELMs Th 1:00pm - 1:50pm	Seats (Total: 30) ONLINE HBK 0302J	Discussion
0201	Anmol Dash Class time/details on ELMs W 9:00am - 9:50am	Seats (Total: 30) ONLINE HBK 0302H	Discussion
0202	Anmol Dash Class time/details on ELMs W 10:00am - 10:50am	Seats (Total: 30) ONLINE HBK 0302H	Discussion

INST380 **Technology and Information Design: Do Good Now**

Prerequisite: Minimum grade of C- in INST201, INST126, STAT100; minimum grade of C- from (PSYC100, SOCY105). Restriction: Must be in the Technology and Information Design program. Credit only granted for: ARHU380, BSOS388B, PLCY388D, or PLCY380.

Climate change. Poverty. Racism. Pressing social issues are big, complex, and difficult. They can feel overwhelming to understand and impossible to address. You might care deeply about an issue, and want to make a difference, but don't know where to start. Sometimes you might not even try. This course will equip and empower you to delve deep into understanding a social issue of your choosing. Through course materials and activities, you'll try out your changemaker muscles and mindsets. Our goal is that this course will empower you to be an informed, engaged citizen who contributes to your community with and beyond your profession. Along the way, we'll address questions like, "What is social change?" and "What happens when our actions have unintended consequences?" We'll talk about the importance of understanding, empathy, agency, and community, and reflect on how these concepts relate to us as individuals.

0101	Elizabeth Bonsignore MW 12:30pm - 1:45pm	Seats (Total: 50) ARC 1101

INST388D **"Maker Movement" Approach to Computing; Data Storytelling through Creative Coding and Digital Dance**

Informed by the "maker movement," this course allows students to merge their personal interests and hobbies with computing. This course is great for students new to computing who want to explore real world applications, or for more advanced students wanting an opportunity to engage in depth with a niche topic.

Students will learn about data storytelling through movement, body tracking and multimedia content generation. Data storytelling enables us to communicate insights from data analyses to a broad audience and helps make the results meaningful through a narrative, or story, that provides context and inspires action. In this course, we will explore data storytelling through choreography and data embodiment-creating physical movement and video that reflects the meaning and context of the data. We will capture that movement and translate the recorded motion into visualizations with multimedia tools like TouchDesigner, culminating in a project to create a short video. Students will build data, technical and artistic fluencies through the experiential activities and the course project. Students with an arts background will gain exposure to visual programming tools and basic data manipulation that support creative processes. Students with a technical background will gain exposure to artistic processes and have the opportunity to leverage technical capabilities for multimedia content creation.

0101	William Kules	Seats (Total: 10)
	Meets January 24, 2024 - March 13, 2024	
	Th 9:00am - 11:00am	CCC 1200

INST388E **"Maker Movement" Approach to Computing; Knitting = Algorithms + Coding**

Informed by the "maker movement," this course allows students to merge their personal interests and hobbies with computing. This course is great for students new to computing who want to explore real world applications, or for more advanced students wanting an opportunity to engage in depth with a niche topic.

Students will examine the relationship between knitting, algorithms, and coding through the investigation and practice of knitting stitches, the design of knitting patterns, and textile creation independent of current technology and time. An algorithm is a precise rule (or set of rules) specifying how to solve some problem (thefreedictionary.com .Coding allows us to express and implement algorithms. In this course, we will explore the concepts of computational thinking, algorithms, and coding using the medium of knitting, creating fiber arts that reflect an understanding of the importance of algorithms and their use in problem-solving. We will capture that understanding and translate algorithms into knitting patterns, culminating in a project to create fiber art employing designs developed in the course.

0101	Pamela Duffy	Seats (Total: 25)
	Meets March 15, 2024 - May 9, 2024	
	Tu 2:00pm - 4:00pm	HBK 0302H

INST398E **Special Topics in Information Studies; Lean Startup**

Selected topics in information studies.

Prerequisite: Minimum grade of C- in STAT100 or MATH115 or higher; and minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in (PSYC100, SOCY105, or BSOS233). This course focuses on creating an entrepreneurial experience for students with all the pressures and demands of the real world in an early-stage startup. Students will gain skills and practical knowledge in design-thinking principles and innovation, learn how to effectively communicate and gather information from their customers, partners, and competitors, pitch an idea and use leadership skills to guide and help motivate others and navigate difficult teamwork situations. In this course, students will use the Lean Startup approach and innovative technology ideas to create a product or service that would benefit society.

ESG1	Ryan Elza	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program or the Techonology Innovation Leadership minor at USG.	

INST398G **Special Topics in Information Studies; Leadership in Learning Communities**

Selected topics in information studies.

0101	Donal Heidenblad	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

INST398J **Special Topics in Information Studies; Design Thinking for Visual Communication**

Selected topics in information studies.

Prerequisites: Minimum C- in PSYC100 or SOCY105; Minimum C- in INST126, INST201, STAT100, MATH115 or higher In an age where technology increasingly permeates our daily existence, there remain certain human qualities that machines cannot replicate: creativity, curiosity, and empathy. This course endeavors to delve into the dynamic relationship between the pillars of aesthetics and the core skills of Design Thinking (DT), all with the goal of enhancing the design process. Throughout the course, we will witness instances where DT bolsters Visual Communication (VC), and conversely, where VC lends its support to the DT process. Our exploration will revolve around three pivotal questions: How can we engage users and establish meaningful connections with them? How can we empathize with users' challenges and provide them with effective solutio ns? How can we embrace a holistic approach to design?

0101	Anat Szendro Sevilla	Seats (Total: 25)
	W 11:00am - 1:45pm	HBK 0302H

INST398L **Special Topics in Information Studies; Augmented Reality Design: Concepts and Applications**

Selected topics in information studies.

The goal of this course is to introduce augmented reality (AR) as a design tool and medium. We will explore the challenges and opportunities for accessibility, user experience design, and user interfaces for 3D content and experiences along with the conceptual and technical skills necessary to create impactful AR experiences. We will examine the compelling use cases for AR, with an emphasis on crafting digital interactions with the real world, and how AR offers new ways to share and understand various types of information and data. Prerequisites: Minimum grade of C- or higher in: INST104, INST126, IDEA201, INST201, SOCY105, STAT100, and MATH110

0101	Jonathan Martin	Seats (Total: 10)
	Th 2:00pm - 4:45pm	ESJ 1202

INST398M **Special Topics in Information Studies; Games as Emergent Experiences**

Selected topics in information studies.

Restriction: Must be in Technology and Information Design program or the Immersive Media Design program. Videogames are designed objects that players bring their own history to, resulting each time in a unique emergent experience. If you've ever wondered why you love a certain game but others hate it, why you prefer one genre of game over another, or why the frustration you feel in complicated games is often actually enjoyable, this is the class for you! We will examine design principles instantiated in various games, analyze how failure and feedback support productive gameplay, discuss how mechanics and aesthetics contribute to emergent experiences, and develop an understanding of the field of games scholarship.

0101	Caro Williams-Pierce	Seats (Total: 14)
	W 2:00pm - 4:45pm	HBK 0115

INST402 **Designing Patient-Centered Technologies**

Prerequisite: Minimum grade of C- from INST362 or INST367. Restriction: Must be in Technology and Information Design or Information Science programs.

Companies have created a vast array of apps and other technologies for understanding managing personal health and wellness, but many of them have been created with little understanding of audience needs or potential ethical issues. Course introduces students to the unique challenges of studying people's health and wellness needs as well as designing and evaluating technologies to meet those needs.

0101	Galina Reitz	Seats (Total: 70)
	TuTh 1:00pm - 2:15pm	ONLINE

INST405 **Game Design**

Prerequisite: Minimum grade of C- in INST126, STAT100 or INST201; and minimum grade of C- from PSYC100 or SOCY105. Restriction: Must be in the Information Science program or Technology and Information Design program. Credit only granted for: INST408J or INST405. Formerly: INST408J.

Games are a structured form of play that are typically undertaken for recreational--but sometimes also educational and even professional--purposes. But what constitutes a successful game? In this course, you will learn the fundamentals of game design: applying elements and principles of game design, such as goals, rules, and challenges to create games, such as board games, card games, and digital games. You will be introduced to the basic tools and methods of game design: paper and digital prototyping, design iteration, design critique, and user testing. As part of the course, you will be designing several games of different types. You will also learn how to use your skills to deconstruct and critique the components of existing games, as well as gain an understanding of the role of the game designer in real-world game development teams.

IM01	Caro Williams-Pierce	Seats (Total: 50)	
	M 2:00pm - 4:45pm	EGR 0108	

INST406 **Cross Disciplinary Communication Lab**

Prerequisite: Minimum grade of C- in INST380; and a minimum grade of C- in Professional Writing General Education requirement. Restriction: Must be in the Technology and Information Design program.

Explores the world of communicating the ideas behind the things we make. In design, the product tends to be the prize: a manifestation of experience, sensibilities, and observations. But products do not always articulate a complete picture of what they are and how they came to be. Communication--speaking, writing, depicting, presenting to various audiences--is an under-leveraged component of design, connecting the product with emotion, process, context, and most importantly, the audience.

0101	Jason Aston	Seats (Total: 40)	
	Tu 3:00pm - 5:45pm	HBK 0115	

INST408I **Special Topics in Information Science; Introduction to Cyber Intelligence**

Selected topics in information studies.

Prerequisite: Minimum of a C- from (STAT100, MATH115 or higher); minimum of a C- from (INST126 or GEOG276); minimum of a C- from (PSYC100, SOCY105, or BSOS233). This course provides students with a socio-technical approach to understanding and analyzing the information environment with regards to global threats and attacks. This is accomplished through understanding the interplay of network and Internet infrastructure, threat vectors, and actors from personal, business, and nation-state levels. Students will also receive an introduction to law enforcement, legal issues pertaining to technology laws, and how private and public partnerships work together to secure the information environment. Lastly, students will be exposed to cyber threat analysis fundamentals.

0101	Kathleen Moore	Seats (Total: 40)	
	Class time/details on ELMs	ONLINE	
	MW 6:00pm - 6:50pm	ONLINE	Discussion

INST410 **Managing with Data and Simulations**

Prerequisite: Minimum grade of C- in INST126 and STAT100; minimum grade of C- in PSYC100 or SOCY105; minimum grade of C- in INST201 or INST301; and minimum grade of C- in MATH115 or higher. Restriction: Must be in the Information Science or Technology and Information Design programs. Credit only granted for: INST408M or INST410. Formerly: INST408M.

General principles of modeling, data analysis, and decision-making methods. Approaches to evaluating and assessing effective concepts, methods, and procedures of modeling and data analysis for decision making in management, advocacy, and communication situations. Ethical considerations in management, advocacy, and communication situations in professional life.

0101	Pamela Duffy, Vedat Diker W 11:00am - 1:45pm	Seats (Total: 40) CCC 1205

INST414 Data Science Techniques

Prerequisite: Minimum grade of C- in MATH115 (or higher) and STAT100; and a minimum grade of C- from INST126 or GEOG276; and a minimum grade of C- from one of the following (INST201, INST301, or BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from BSOS233 or INST314. Recommended: Minimum C- in MATH140 and (INST326, BSOS326, or GEOG376). Restriction: Must be in Information Science or Social Data Science program.

An exploration of how to extract insights from large-scale datasets. The course will cover the complete analytical funnel from data extraction and cleaning to data analysis and insights interpretation and visualization. The data analysis component will focus on techniques in both supervised and unsupervised learning to extract information from datasets. Topics will include clustering, classification, and regression techniques. Through homework assignments, a project, exams and in-class activities, students will practice working with these techniques and tools to extract relevant information from structured and unstructured data.

0101	Naeemul Hassan M 11:00am - 12:30pm Class time/details on ELMs	Seats (Total: 50) ATL 2428 ONLINE
0102	Wei Ai TuTh 3:30pm - 4:45pm	Seats (Total: 50) CSI 1121
0103	Cody Buntain MW 12:00pm - 1:15pm	Seats (Total: 49) HBK 0103
ESG1	Faisal Quader F 9:00am - 10:30am Class time/details on ELMs	Seats (Total: 30) BLD4 3321 ONLINE
	Restricted to students in the Information Science Program at USG.	

INST441 Information Ethics and Policy

Prerequisite: Minimum grade of C- from INST341 or INST380. Restriction: Must be in the Information Science program or Technology and Information Design program.

Explores via case studies the legal, ethical, and technological challenges in developing and implementing policies for managing digital assets and information. Emphasizes access questions pertinent to managing sensitive information and the roles and responsibilities of information professionals.

0101	Ryan O'Grady Class time/details on ELMs M 12:00pm - 1:15pm	Seats (Total: 60) ONLINE TWS 1310

INST443 **Tools and Methods for Digital Curation**

Prerequisite: Must have completed with a minimum grade of C-, or be concurrently enrolled, in INST341 or INST380. Restriction: Must be in the Information Science program or Technology and Information Design program.

Introduces students to the application of digital tools and methods in a variety of organizational settings, academic disciplines, and economic sectors.

0101	Richard Marciano TuTh 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 42) HBK 0115 ONLINE

INST447 **Data Sources and Manipulation**

Prerequisite: Minimum grade of C- in STAT100 and INST327; and a minimum grade of C- from one of the following (INST201, INST301, BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from BSOS233 or INST314; and a minimum grade of C- from one of the following (BSOS331, GEOG273, or INST326). Restriction: Must be in Information Science or Social Data Science program.

Examines approaches to locating, acquiring, manipulating, and disseminating data. Imperfection, biases, and other problems in data are examined, and methods for identifying and correcting such problems are introduced. The course covers other topics such as automated collection of large data sets, and extracting, transforming, and reformatting a variety of data and file types.

0101	Donal Heidenblad MWF 3:00pm - 3:50pm	Seats (Total: 75) ATL 2324
0102	Matthew Patrick Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 75) ATL 2324 ONLINE

ESG1	Timothy Suh	Seats (Total: 30)	
	M 9:00am - 10:30am Class time/details on ELMs	BLD4 3321 ONLINE	Discussion
	Restricted to students in the Information Science Program at USG. This course will meet in person on Feb 5, Feb 19, March 4, April 1, April 15, and April 29. The remaining meetings will be online and asynchronous.		

INST450 **Introduction to CRM in Salesforce**

Prerequisite: INST327. Credit only granted for: INST408P or INST450. Formerly: INST408P.

Students learn how to configure Salesforce so that they are able to collect, analyze and retrieve all of the vital information associated with their customer base. Moreover, students use Force.com fundamentals to understand Salesforce online application development and the deployment of next-generation cloud apps. The course offers practical hands-on learning that ensures students' job success as well as the theoretical knowledge needed to pass both Salesforce certification exams (ADM201 & Platform App Builder).

ESG1	Gavin Britto	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to students in the Information Science Program at USG.	

INST452 **Health Data Analytics**

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in PSYC100 or BSOS233; and minimum grade of C- in STAT100 or MATH115 or higher. Restriction: Must be in the Information Science program or Social Data Science program.

Health data analytics involves the extrapolation of actionable insights from patient data, using data sources such as electronic health records (EHRs), claims data, surveillance data, and surveys. Health data is complex, often unstructured and incomplete, and is organized for clinical care rather than to meet analytic needs. This course will involve the use of various analytical methods in order to translate large and complex data, whether structured or unstructured, into insights that improve decision-making from both the patient and provider perspectives. Healthcare data are rich and hold so much potential, but a challenge is presented to patients, providers, and even government agencies when it comes to figuring out how to leverage these data. Students in this course will learn foundational topics in data analytics focused on health data and will apply this knowledge to real health datasets through hands-on labs integrated into the lectures.

0101	Nekabari Sigalo	Seats (Total: 40)
	Tu 6:00pm - 8:45pm	BPS 1238

INST456 **Risk Management Leadership in the Information Age**

Credit only granted for: INST408B or INST456. Formerly: INST408B.

Helps students assess and mitigate a range of vulnerabilities within an organization's data networks, allowing them to understand how to protect the integrity, security, and confidentiality of information.

ESG1	Michael Prakhye Class time/details on ELMs	Seats (Total: 40) ONLINE
	Restricted to students in the Information Science Program at USG.	

INST462 **Introduction to Data Visualization**

Prerequisite: Minimum grade of C- in STAT100; minimum grade of a C- from one of the following (INST201, INST301, or BSOS233); minimum grade of C- in INST126 or GEOG276; a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, SOCY100, or SOCY105); and a minimum grade of C- from BSOS233 or INST314. Restriction: Must be in Information Science or Social Data Science program.

Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.

0101	Scott Jackson TuTh 9:30am - 10:45am	Seats (Total: 50) CCC 1111
0102	Jesse Klein Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 90) ONLINE CCC 1100
0103	Jesse Klein TuTh 3:30pm - 4:45pm	Seats (Total: 90) SYM 0200
ESG1	Jesse Klein Class time/details on ELMs	Seats (Total: 40) ONLINE
	Restricted to students in the Information Science Program at USG.	

INST463 **Technology Socialprenuer**

Credit only granted for: INST398B or INST463. Formerly: INST398B.

Introduces students to the role of technology and entrepreneurship in our society. Students will be able to choose an existing society issue and develop creative entrepreneurial ideas to solve it using innovative technologies. The course allows students to meet industry professionals and learn more about various social problems and projects companies focus on and try to solve in the modern world. Students are also able to contribute to those solutions.

ESG1	Ryan Elza Class time/details on ELMs	Seats (Total: 40) ONLINE
	Restricted to students in the Information Science Program at USG.	

INST464 **Decision Making for Cybersecurity**

Prerequisite: Must have earned a minimum grade of C- in INST201, INST126, MATH115, PSYC100, and INST364. Restriction: Must be in Information Science program. Credit only granted for: INST408W or INST464. Formerly: INST408W.

Discusses human and organizational decision making from a variety of perspectives. Applies different risk assessment and decision making frameworks that are relevant to personal and organization cybersecurity, with a focus on the quantitative Factor Analysis of Information Risk (FAIR) model. Considers monetary, social and societal costs of cybersecurity decisions. Considers a range of questions relating to cybersecurity, from whether to install a game on a smartphone to how to allocate scarce information security resources in an organization.

0102	Joseph Kelly MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 60) HJP 2242 ONLINE

INST466 **Technology, Culture, and Society**

Prerequisite: Minimum grade of C- in INST201 or INST301; and minimum grade of C- in PSYC100 or SOCY105. Restriction: Must be in the Information Science program or Technology and Information Design program.

Individual, cultural, and societal outcomes associated with development of information & communication technologies (ICTs), including pro- and anti-social factors. Unpacking how gender, race, ethnicity, sexual orientation, disabilities, and political affiliations affect consumption and production of online experiences. Unpacking how structures of dominance, power and privilege manifest at individual, institutional and cultural levels.

0101	Alia Reza MW 2:00pm - 3:15pm	Seats (Total: 50) CCC 1111
0102	M Sauter TuTh 2:00pm - 3:15pm	Seats (Total: 50) KEY 0103
0103	Angela Rodgers-Koukoui TuTh 11:00am - 12:15pm	Seats (Total: 53) BPS 1236

INST467 **Fundamentals of Cybersecurity for Policy Makers**

Prerequisite: Must have completed with a C- or be concurrently enrolled in INST364. Restriction: Must be in Information Science program. Credit only granted for: INST408V, PLCY388C, or INST467. Formerly: INST408V.

Explores the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundations to the domestic and international policy considerations surrounding governance, response, critical infrastructure risk management, and privacy. Designed for students with little to no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

0101	Charles Harry TuTh 11:00am - 12:15pm	Seats (Total: 40) CHE 2136

INST470 **Competitive Business Intelligence**

Credit only granted for: INST408K or INST470. Formerly: INST408K.

Competitive intelligence (CI) is a derivative of governmental intelligence, as well as business marketing, economics, and management, that is defined similarly: the collection, evaluation, analysis, and application of legally available information relevant to the plans, decisions, and operations of one's organization. Topics will include an overview and comparison of the intelligence process in government and in business (i.e., the intelligence cycle), a detailed consideration of the requirements and the analytical segments of that process, a survey of current analytical tools, a survey of information sources and information acquisition activities, a survey of required personnel, physical and information security policies, and the necessary efforts in creating an effective CI unit within any business enterprise.

ESG1	Arjav Shah Class time/details on ELMs	Seats (Total: 40) ONLINE
	Restricted to students in the Information Science Program at USG.	

INST490 **Integrated Capstone for Information Science**

(Perm req)

Prerequisite: Minimum grade of C- in INST311, INST314, INST326, INST327, INST335, INST346, INST352, and INST362. Restriction: Must be in Information Science program; and must have earned a minimum of 90 credits; and permission of INFO-College of Information Studies.

The capstone provides a platform for Information Science students where they can apply a subset of the concepts, methods, and tools they learn as part of the Information Science program to addressing an information problem or fulfilling an information need.

0101	TJ Rainsford W 5:00pm - 7:45pm	Seats (Total: 50) ESJ 2212
0102	William Kules Th 3:00pm - 5:45pm	Seats (Total: 50) ESJ 2204
0103	Andrew Fellows MW 4:00pm - 5:15pm	Seats (Total: 50) KEY 0103

0104	Jesse Klein W 6:00pm - 8:45pm	Seats (Total: 50) ESJ 0215
0105	Richard Panzer Tu 6:00pm - 8:45pm	Seats (Total: 50) ONLINE
0106	Mary Ann Francis M 3:00pm - 5:45pm	Seats (Total: 40) HBK 0302H
0107	Tamara Clegg TuTh 2:00pm - 3:15pm	Seats (Total: 50) IRB 2207
ESG1	TJ Rainsford W 9:00am - 11:45am *Restricted to students in the Information Science Program at USG.*	Seats (Total: 50) BLD4 4335

INST600 **Foundations for Librarians and Information Professionals**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC791 or INST600. Formerly: LBSC791.

An introduction to the field of library and information science (LIS), its history, and future direction that provides students with an understanding and appreciation of the nature and functions of the profession(s) they have entered. The focus is on core concepts underlying the LIS discipline, with particular emphasis on professional ethics/values, diversity, equity, inclusion and accessibility (DEIA), and the ways in which technology has shaped and continues to shape the field.

IM01	Ursula Gorham-Oscilowski M 6:00pm - 8:45pm	Seats (Total: 40) BPS 1236
IM02	Ryan O'Grady Class time/details on ELMs	Seats (Total: 40) ONLINE

INST604 **Introduction to Archives and Digital Curation**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC604 or LBSC605.

Overview of the principles, practices, and applications in the archival and digital curation fields.

IM01	Eric Hung Th 10:00am - 12:45pm	Seats (Total: 30) ONLINE

INST608S **Special Topics in Information Studies; Conspiracy Theories**

Covers special topics in information studies.

IM01	Jennifer Golbeck	Seats (Total: 10)
	M 2:00pm - 4:45pm	ONLINE

INST608T **Special Topics in Information Studies; Knowledge Infrastructures:How Knowledge is Created, Shared, and Maintained in Sociotechnical Societies**

Covers special topics in information studies.

IM01	Irene Pasquetto	Seats (Total: 10)
	Tu 11:00am - 1:45pm	SPH 0305

INST612 **Information Policy**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST612 or LBSC625. Formerly: LBSC625.

Nature, structure, development and application of information policy. Interactions of social objectives, stakeholders, technology and other forces that shape policy decisions.

IM01	P Kshetry	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST614 **Literacy and Inclusion**

Restriction: Permission of INFO-College of Information Studies.

The educational and psychological dimensions of helping and supporting new users to become information literate and experienced users to remain engaged.

IM01	Eric Hung	Seats (Total: 30)
	W 2:00pm - 4:45pm	HBK 0123

INST616 **Open Source Intelligence**

Restriction: Permission of INFO-College of Information Studies.

An introduction to Open Source Intelligence (OSINT) for Information Professionals. For the purposes of this course, OSINT is defined as the use of free, publicly available online sources to gather information about people, organizations/groups, places, businesses, activities/events, and capabilities. Collected information is used to conduct analysis or reach conclusions with estimated level of certainty. Students will learn basic and advanced techniques for using search engines, people directories, social networks, location-based services, images and videos, public records, domain analytics, documents, archives, and other sources. Throughout the modules, data quality and validation procedures will be key topics. Professional applications of the skills taught are extensive and include libraries, law offices, journalism, human resources, competitive intelligence, law enforcement, opposition research, government agencies, ethical hacking, and many more.

IM01	Mary Ann Francis	Seats (Total: 20)
	Th 2:00pm - 4:45pm	HBK 1108

INST622 **Information and Universal Usability**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC622 OR INST622. Formerly: LBSC622.

Information services and technologies to provide equal experiences and outcomes to all users. Laws, standards, approaches, component concepts, access needs, and technologies in relation to physical and online information environments.

IM01	Renee Hill	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST630 **Introduction to Programming for the Information Professional**

Restriction: Permission of INFO-College of Information Studies.

An introduction to computer programming intended for students with no previous programming experience. Topics include fundamentals of programming and current trends in user interface implementation that are relevant to information professionals.

IM01	Alex Leitch	Seats (Total: 35)
	Th 2:00pm - 4:45pm	CCC 1111

INST639G **Practical Skills in HCI; UX Strategy**

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Explore applications of business strategy and UX design that create innovative digital products and services to meet user needs, enhance an organization's value proposition, and advance its mission and goals.

IM01	Stacy Surla	Seats (Total: 15)
	Tu 11:00am - 11:50am	ONLINE

INST639L **Practical Skills in HCI; Information Architecture**

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Formerly: INST639H (Summer 2021). Credit only granted for INST639L or INST639H (when taken in Summer 2021).

IM01	Stacy Surla	Seats (Total: 15)
	Th 11:00am - 11:50am	ONLINE

INST639O **Practical Skills in HCI; Maker Movement Approach to Computing; Data Storytelling thr ough Creative Coding and Digital Dance**

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

Students will learn about data storytelling through movement, body tracking and multimedia content generation. Data storytelling enables us to communicate insights from data analyses to a broad audience and helps make the results meaningful through a narrative, or story, that provides context and inspires action. In this course, we will explore data storytelling through choreography and data embodiment-creating physical movement and video that reflects the meaning and context of the data. We will capture that movement and translate the recorded motion into visualizations with multimedia tools like TouchDesigner, culminating in a project to create a short video. Students will build data, technical and artistic fluencies through the experiential activities and the course project. Students with an arts background will gain exposure to visual programming tools and basic data manipulation that support creative processes. Students with a technical background will gain exposure to artistic processes and have the opportunity to leverage technical capabilities for multimedia content creation.

IM01	William Kules	Seats (Total: 10)
	Meets January 24, 2024 - March 13, 2024	
	Th 9:00am - 11:00am	CCC 1200

INST639P **Practical Skills in HCI; Augmented Reality Design: Concepts and Applications**

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

The goal of this course is to introduce augmented reality (AR) as a design tool and medium. We will explore the challenges and opportunities for accessibility, user experience design, and user interfaces for 3D content and experiences along with the conceptual and technical skills necessary to create impactful AR experiences. We will examine the compelling use cases for AR, with an emphasis on crafting digital interactions with the real world, and how AR offers new ways to share and understand various types of information and data.

IM01	Jonathan Martin	Seats (Total: 20)
	Th 2:00pm - 4:45pm	ESJ 1202

INST641 **Policy and Ethics in Digital Curation**

Prerequisite: INST604; or INST640; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Discussion of strategies to address intellectual property, privacy, security and other policy and ethics concerns raised by the curation of digital records and data.

IM01	Waqas Shah	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST646 **Principles of Records and Information Management**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC680 OR INST646. Formerly: LBSC680.

Principles and practices of managing records in the context of information management programs in government, corporate and other institutional settings. Includes access; legal requirements; digital technologies; and creation, administration, appraisal, and retention and disposition of records.

IM01	David Patrick	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST652 **Design Thinking and Youth**

Restriction: Permission of INFO-College of Information Studies.

Methods of design thinking specifically within and for youth contexts, including user-centered design, understanding user needs, ideation, contextual design, participatory design, iterative prototyping, and visual design. These topics will specifically be studied in the context of designing with and for youth.

IM01	Morgan Adle	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	

INST653 **Introduction to Museum Scholarship**

Cross-listed with: AMST655, ANTH655, HIST610. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Lesley Langa	Seats (Total: 15)	
	Tu 5:30pm - 7:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

INST703 **Visual Design Studio**

Restriction: Must be in the Human-Computer Interaction Master's program. Credit only granted for: INST728T or INST703. Formerly: INST728T.

This hands-on studio course will help students develop foundational visual skills related to user experience (UX) design. Students will explore methodologies and processes used in many of the industry's top creative environments and study the entire visual design skillset, including concept development, content creation, system design, and tools and process.

IM01	Jason Aston	Seats (Total: 25)
	Tu 11:00am - 1:45pm	HBK 0302J
IM02	Jason Aston	Seats (Total: 25)
	W 6:00pm - 8:45pm	HBK 0302J

INST705 **Game Design Studio**

Recommended: Programming experience will be useful, but not strictly necessary. Credit only granted for: INST408J, INST608J or INST705. Formerly: INST608J.

Learn the fundamentals of game design by applying elements and principles of game design, such as goals, rules, and challenges, to create board games, card games, and digital games. Students will be introduced to the basic tools and methods of game design: paper and digital prototyping, design iteration, design critique, and user testing. Students will design several games of different types to add to a growing portfolio of game design concepts. Students will also learn how to use their skills to deconstruct and critique the components of existing games, as well as gain an understanding of the role of the game designer in real-world game development teams.

Every week, we'll read foundational and cutting edge work on games, watch videos of key talks in the field, and play a videogame, using a format called Read, Watch, Play. We'll begin the semester by talking about how failure and feedback lead to certain types of emergent experiences, then learn about flow, narrative, what it means to become the character in a game, what game experiences inherently miss, how 'cheap shot' games seek to manipulate their players, and so on. We'll wrap up the semester with a small project of your choice, in whatever format and on whatever topic you find interesting!

IM01	Caro Williams-Pierce M 2:00pm - 4:45pm	Seats (Total: 50) EGR 0108

INST709 **Independent Study**

(Perm req)

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision. Registration limited to the advanced student with the approval of the advisor and of the faculty member involved.

Contact department for information to register for this course.

INST710 **User Experience Research Methods**

Students will learn to conduct user research in industry and to provide foundational knowledge needed for academic research. It examines the theoretical and epistemological differences between research paradigms and provides an overview of qualitative, quantitative and mixed-method approaches. It overviews user-centered design (UCD) methods, and uses Contextual Inquiry/Contextual Design as the backbone for a research project, incorporating related formative UCD methods and techniques. It is a project-based course, where students conduct a semester-long project to prepare them for the HCIM Capstone as well as other types of formative user research.

IM01	Stephanie Valencia Valencia W 2:00pm - 4:45pm	Seats (Total: 40) HBK 0302J

INST711 **Interaction Design Studio**

Covers basic interaction design principles and design process from a studio-based design perspective. Focuses on how to design for interactions that will resonate with your audiences: how the features and functions of a project get translated into something people find usable, useful, and desirable. Explores the role of interaction designers. Students design and prototype interactive products, systems, and services.

IM01	Alex Leitch Tu 2:00pm - 4:45pm	Seats (Total: 25) HBK 0302J
IM02	Kirtana Kalavagunta Th 6:00pm - 8:45pm	Seats (Total: 25) HBK 0109

INST713 **Futures of Work**

Credit only granted for: INST728Y or INST713. Formerly: INST728Y.

Are robots taking our jobs? Are there any jobs even worth taking? What other futures of work might we build? This course examines these questions by focusing on the labor process of computer-supported collaborative work (CSCW) in domains ranging from transportation to software development to sex work, drawing on research and theory from sociology, organizational studies, HCI, and more. Design-oriented students will be encouraged to develop interventions to enhance not just productivity but autonomy and democracy. Research-oriented students will learn to study workplaces and situate shopfloor developments in global political economy.

IM01	Daniel Greene	Seats (Total: 22)
	W 11:00am - 1:45pm	HBK 0115

INST725 **Legal Research for Information Professionals**

Prerequisite: INST615. Restriction: Permission of INFO-College of Information Studies.

An in-depth exploration the methods, resources, and context of conducting advanced legal research. After offering an overview of various types of legal materials, the course will focus on finding and analyzing legal materials through various primary sources, databases, secondary sources, and public records for government and corporate settings. The course will also discuss practical issues of conducting legal research, such as data management and budgeting.

IM01	Jonathan Lazar	Seats (Total: 30)
	M 2:00pm - 4:45pm	ONLINE

INST726 **Information Governance**

Offers a comprehensive introduction to information governance, an emerging discipline concerned with how organizations minimize risk and maximize the value associated with their information assets. Drawing from real-life examples from the private and public sectors, the course will explore important facets of information governance, including how institutions incorporate best practices in records and information management, data storage and archiving, e-discovery, privacy, cybersecurity, analytics, risk management, and compliance. The course will also provide practical lessons in developing a state-of-the-art information governance program.

IM01	Jason Baron	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST728M **Special Topics in Information Studies; UX Business Basics**

Selected topics in information studies.

Explore the business side of UX design and what it takes to successfully bring products to market and take a product from ideation through prototype of a minimum viable product (MVP) while also assessing risks and defining metrics for product success. Topics include project management, project scope, problem identification, market research, and how to effectively communicate research findings to various stakeholders and teams as well as presentation skills and building winning pitch decks for funding.

IM01	Francesca Polito	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST728X **Special Topics in Information Studies; Designing Technology with Older People**

Selected topics in information studies.

IM01	Amanda Lazar	Seats (Total: 20)
	Th 11:00am - 1:45pm	HBK 0109
	Class time/details on ELMs	ONLINE

INST730 **Games as Emergent Experiences**

Credit only granted for: INST608K, INST408K or INST730. Formerly: INST608K.

Videogames are designed objects that players bring their own history to, resulting each time in a unique emergent experience. If you've ever wondered why you love a certain game but others hate it, why you prefer one genre of game over another, or why the frustration you feel in complicated games is often actually enjoyable, this is the class for you! We will examine design principles instantiated in various games, analyze how failure and feedback support productive gameplay, discuss how mechanics and aesthetics contribute to emergent experiences, and develop an understanding of the field of games scholarship.

IM01	Caro Williams-Pierce	Seats (Total: 16)
	W 2:00pm - 4:45pm	HBK 0115

INST732 **Entertainment Theory**

An entertainment environment is a setting in which audiences interact with content developed to please, charm, cheer, interest, engage, and enthrall distinct individuals and groups. Entertainment environments surround us in all parts of our lives-this course aims to dissect them using a foundation of entertainment theory, including a set of models and theories examining motivations for entertainment consumption; selection of content; processing of content; evaluation of content; and cognitive, attitudinal, and behavioral effects of content.

IM01	Katherine Izsak	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST733 **Database Design**

Prerequisite: LBSC690, LBSC671, or INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST733 or LBSC793. Formerly: LBSC793.

Principles of user-oriented database design. Requirements analysis. Data modelling. Data integrity and security and multi-user databases. Implementing an information system using a database management system (DBMS).

IM01	Pamela Duffy, Vedat Diker Th 2:00pm - 4:45pm	Seats (Total: 40) HBK 0115

INST737 **Introduction to Data Science**

Prerequisite: INST627 and (LBSC690, LBSC671, INFM603, or JOUR652). Restriction: Permission of INFO-College of Information Studies.

An exploration of some of the best and most general approaches to get the most information out of data through clustering, classification, and regression techniques.

IM01	Vanessa Frías Martínez Class time/details on ELMs	Seats (Total: 40) ONLINE
IM02	David Patrick M 11:00am - 1:30pm Class time/details on ELMs	Seats (Total: 30) HBK 0302H ONLINE

INST742 **Implementing Digital Curation**

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Management of and technology for application of digital curation principles in specific settings. Characteristics, representation, conversion, and preservation of digital objects. Application of standards for digitization, description, and preservation. Planning for sustainability, risk mitigation and disaster recovery.

IM01	Richard Marciano Th 6:00pm - 8:45pm	Seats (Total: 30) ONLINE

INST751 **IoT and Streaming Data Analytics**

Prerequisite: INFM603, INST733, or other programming and database courses, or Permission of the instructor.

An increasing number of sensors, actuators, Internet-connect instruments and apparatuses, smart devices, and systems are generating and broadcasting a wide variety of continuous data streams. Machine-generated structured data sources are joined by a myriad of unstructured data streams from social media, weather, and news sources, among others. Integrated into networks, these continuously-streaming devices (collectively referred to as the Internet of Things, or IoT) provide a fertile array of data sources that can be ingested and analyzed to inform and automate decision processes for numerous purposes including operational intelligence, process monitoring, optimization, risk management, personalization, and prediction in real time. This course looks at architectures and operational modes for streaming data sources and examine methods for descriptive analytics, creation of predictive models, and integrated deployment of these models via centralized and edge computing resources. We will discuss a variety of uses cases for streaming data analytics and how they are applied in different industries including public utilities, smart cities, manufacturing, telecommunications, and healthcare.

IM01	Evan Levy	Seats (Total: 30)	
	Tu 11:00am - 1:45pm Class time/details on ELMs	HBK 0302H ONLINE	
	In-person lecture will meet on the following dates: February 6, February 27, March 5, and March 12		

INST755 **eGovernment for Smart Cities**

Federal, state, and local government entities are increasingly communicating, interacting, and providing services digitally in an online and networked environment. Concurrently, urban planners and administrators seek to leverage the potential of rapidly evolving technologies to transform service provisioning for the efficient management of assets and resources, with the goal of creating sustainable, livable, innovative, and economically vibrant cities and communities. This course will examine the intersection of these two developments and provide a framework for understanding the technical, policy, and information management issues that are emerging.

IM01	Christopher Dempwolf	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	

INST756 **Information Risk Management**

Prerequisite: INFM600; or permission of INFO-College of Information Studies.

Looks at information system threats, vulnerabilities, risk assessment and management. Explores how regulations scope and define what is considered to be protected information. Considers how data assets are assessed and classified in terms of their levels of sensitivity. Discusses specifying data protection policies and the techniques for enforcing compliance with those policies.

IM01	Ido Sivan-Sevilla	Seats (Total: 6)	
	Class time/details on ELMs W 10:30am - 1:00pm	ONLINE HBK 0302J	Discussion

INST762 **Visual Analytics**

Prerequisite: INFM603, INST630, or JOUR652; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728Q OR INST762. Formerly: INST728Q.

Visual analytics is the use of interactive visual interfaces to facilitate analytical reasoning. In essence, visual analytics is based on the--not uncontroversial--idea that humans and computers working alone are insufficient for the data challenges of today and tomorrow, and that effective synthesis of both humans and computational algorithms are needed to create human-in-the-loop systems. Thus, visual analytics bridges human-centered disciplines such as visualization and human-computer interaction with computation-centered disciplines such as machine learning, probabilistic methods, and knowledge discovery. The course contents will include both theoretical foundations of this interdisciplinary science as well as practical applications of integrated visual analysis techniques on real-world problems.

IM01	Patricia Bunnell Tu 2:00pm - 4:45pm	Seats (Total: 40) ONLINE

INST767 **Big Data Infrastructure**

Prerequisite: INST737; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles and techniques of data science and business intelligence. Technologies and architectures for large-scale data warehousing and scale-out data analytics platforms. Supervised and unsupervised data mining.

IM01	Zach Drake W 5:30pm - 8:15pm Class time/details on ELMs	Seats (Total: 40) HBK 0115 ONLINE
IM02	Zach Drake Class time/details on ELMs	Seats (Total: 10) ONLINE

INST771 **Foundations of Cybersecurity**

Explores the foundational concepts of cybersecurity including the Threat Landscape, the evolution and structures of the global telecommunications network, key communication protocols and foundations of networks, the history, culture and emergence of the hacking process, and the core motivations and tactics of threat actors.

IM01	Ido Sivan-Sevilla Class time/details on ELMs Tu 10:15am - 12:15pm	Seats (Total: 40) ONLINE HBK 0109

INST776 **HCIM CAPSTONE PROJECT**

Prerequisite: INST775; or permission of instructor. Restriction: Must be taken in the semester immediately following completion of INST775 HCIM Capstone Prep; and permission of INFO-College of Information Studies.

The opportunity to apply the skills learned through coursework in a semester-long project applied to a real -world problem. Capstone projects may follow the design, prototyping and evaluation process from end-to-end or may focus on a subset of elements in that process, such as formative study and design.

IM02	Wayne Lutters M 3:00pm - 5:45pm Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0302J ONLINE
IM03	Heera Lee Tu 6:00pm - 8:45pm Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0302J ONLINE

INST779 **Readings Seminar**

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

IM01	Amanda Lazar Th 4:00pm - 4:50pm *Designerly Methods in Human-Computer Interaction*	Seats (Total: 5) ONLINE
IM02	Joel Chan W 2:00pm - 2:50pm *Human-Centered AI-Infused Systems: Conceptual Foundations and Design Patterns*	Seats (Total: 5) HBK 0302H

INST785 **Documentation, Collection, and Appraisal of Records**

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC785 OR INST785. Formerly: LBSC785.

Development of documentation strategies and plans; collecting policies to guide programs in acquiring records; theories and techniques for appraising records to identify those with continuing value.

IM01	Andrew Casertano, Katherine Izsak, Katrina Fenlon, Ryan O'Grady Th 6:00pm - 8:45pm	Seats (Total: 40) BPS 1238

INST786 **Museum Research Seminar**

Prerequisite: AMST655, ANTH655, or HIST610. Cross-listed with: AMST856, ANTH856, HIST810. Credit only granted for: AMST856, ANTH856, HIST810, INST728U or INST786.

A research seminar focusing on the practice and presentation of cultural and historical scholarship in museums and historical sites. Students will complete an original research project on the challenges and opportunities of public exhibition and interpretation of cultural and historical research.

0101	Jamila Moore-Pewu Th 4:00pm - 5:45pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE	 Discussion

INST787 **Museum Scholarship Practicum**

(Perm req)

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, HIST811. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 15)

INST798 **Seminar in Research Methods and Data Analysis**

Topics and issues in information studies research. Design and conduct of research project.

IM01	Susannah Paletz W 2:00pm - 4:45pm *Focuses on experimental and quasi-experimental methods, particularly for behavioral and social aspects of technology and information topics. Thi s course will include study design, data collection, and some initial ways to analyze quantitative data. Students will design a study on a topic of their choice.*	Seats (Total: 20) ONLINE
IM02	Amelia Gibson Tu 2:00pm - 4:45pm *Interpretive Methods*	Seats (Total: 20) HBK 0103

INST799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

INST802 **Pragmatic and Methodological Foundations for Information Studies**

Credit only granted for: INST888 or INST802. Formerly: INST888.

Information Studies' eclectic interdisciplinarity is both its greatest strength and its most significant weakness. As an increasingly multi/inter/trans/non-disciplinary intellectual community, Information Studies embraces a wide variety of conceptual frameworks, theories, methodological approaches, and intellectual traditions. As such, it is necessary to be able to bring many different intellectual perspectives to bear on the complex, nuanced, phenomena that are its focus. The variety in the intellectual toolbox of Information Studies is central to its ability to avoid reduction of its focal topics to trite, simplistic characterizations. However, the field's paradigmatic richness places particular burdens on the individual researcher. The purpose of this seminar is to help students develop a reflective practice that they can rely on to turn their interests into valuable new insights in an interdisciplinary domain like Information Studies.

0101	Sheena Erete M 11:00am - 1:45pm	Seats (Total: 20) HBK 0302J

INST808 **Seminar in Research Methods and Data Analysis**

Topics and issues in information studies research. Design and conduct of research project.

IM01	Susannah Paletz W 2:00pm - 4:45pm *Focuses on experimental and quasi-experimental methods, particularly for behavioral and social aspects of technology and information topics. This course will include study design, data collection, and some initial ways to analyze quantitative data. Students will design a study on a topic of their choice.*	Seats (Total: 20) ONLINE
IM02	Amelia Gibson Tu 2:00pm - 4:45pm *Interpretive Methods*	Seats (Total: 20) HBK 0103

INST818 **Individual Research Experience**

(Perm req)

Pre-candidacy individual research experience directed by a faculty member.

Contact department for information to register for this course.

INST828 **Readings Seminar**

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

0101	Amanda Lazar Th 4:00pm - 4:50pm *Designerly Methods in Human-Computer Interaction*	Seats (Total: 5) ONLINE
0102	Joel Chan W 2:00pm - 2:50pm *Human-Centered AI-Infused Systems: Conceptual Foundations and Design Patterns*	Seats (Total: 10) HBK 0302H

INST878O **Special Topics in Information Studies; Conspiracy Theories**

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Jennifer Golbeck M 2:00pm - 4:45pm	Seats (Total: 10) ONLINE

INST878R **Special Topics in Information Studies; Futures of Work**

Seminar topics offered as faculty and student interests warrant. Topic varies.

Are robots taking our jobs? Are there any jobs even worth taking? What other futures of work might we build? This course examines these questions by focusing on the labor process of computer-supported collaborative work (CSCW) in domains ranging from transportation to software development to sex work, drawing on research and theory from sociology, organizational studies, HCI, and more. Design-oriented students will be encouraged to develop interventions to enhance not just productivity but autonomy and democracy. Research-oriented students will learn to study workplaces and situate shopfloor developments in global political economy.

0101	Daniel Greene W 11:00am - 1:45pm	Seats (Total: 20) HBK 0115

INST878X **Special Topics in Information Studies; Knowledge Infrastructures: How Knowledge is Created, Shared,and Maintained in Sociotechnical Societies**

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Irene Pasquetto Tu 11:00am - 1:45pm	Seats (Total: 10) SPH 0305

INST898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

INST899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

ISRL329P **Special Topics in Israel Studies; Israeli Foreign and Security Policy**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with GVPT368E. Credit only granted for ISRL329P or GVPT368E. This course will provide an overview of Israeli foreign and security policy from 1948 to the present. We will examine how Israel's foreign and security policies reflect its Jewish origins, Zionist ideology, its relations with its neighbors and world powers, and its regional quest for recognition and legitimacy.

0101	Ilai Saltzman	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SQH 1101

ISRL329Y **Special Topics in Israel Studies; Israel in Regional, International, and U.S. Media and Social Media**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with JOUR459Y. Credit only granted for ISRL329Y or JOUR459Y. This course offers a comprehensive exploration of the multifaceted relationship between Israel and the media landscape in the regional, international, and U.S. media landscapes, providing students with the tools to critically analyze and understand the complex narratives on Israel, Arab-Israeli, Israeli-Palestinian affairs and the dynamics at play. Students will delve into the historical, cultural, and political context that shapes the portrayal of Israel in traditional media outlets, as well as the transformative power of social media platforms.

0101	Marwa Maziad	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ONLINE

ISRL329Z **Special Topics in Israel Studies; Blackness in Israeli Popular Culture and Contemporary Art**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with AASP398F and SOCY398Z. Credit only granted for ISRL329Z, AASP398F, or SOCY398Z. This course will review the work of artists of Ethiopian origin who are active in the Israeli art field today and analyze the subjects they deal with in their work in relation to the socio-political change in Israel and the increase in Ethiopian representation in popular culture. We will discuss concepts such as socio-political art, activism through art, and a-political art.

0101	Efrat Yerday	Seats (Total: 35)
	MW 2:00pm - 3:15pm	HBK 0105

ISRL342 **History of Modern Israel**

Cross-listed with HIST376. Credit only granted for: HIST376 or ISRL342.

History of modern Israel since the beginning of the Zionist settlement in 1882. Attention to different interpretations and narratives of Israel's history, including the historical and ideological roots of Zionism, the establishment of the State of Israel, ideological forces, wars, and the triumphs and crises of democracy.

0101	Paul Scham	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	SQH 1117

ISRL349N **Investigating Topics in Israel Studies; The Arabs in Israel: Palestinian Arab Citizens of Israel**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with GVPT368J. Credit only granted for ISRL349N or GVPT368J. This course examines the political, social, and economic experience of the Arab minority in Israel from the establishment of the State up until recent years. It addresses the relationship between the State and the Arab community and the distinctive internal dynamics of Arab society as well as the relationship between the Arab minority in Israel and the Palestinians, and the Arab world.

0101	Morad Elsana	Seats (Total: 35)
	Tu 6:00pm - 8:30pm	KEY 0126

ISRL349W **Investigating Topics in Israel Studies; Israeli Slang**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with HEBR398W and JWST319W. Credit only granted for HEBR398W, ISRL349W, or JWST319W. Examination of the history, linguistics, politics and sociology of Modern Israeli Hebrew slang, including influences from popular American culture, technology, the military, Arabic and immigrant group languages. Taught in English; course materials in Hebrew with translation.

0101	Avital Karpman	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

ISRL349Y **Investigating Topics in Israel Studies; Environment and Sustainable Development in Israel**

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listed with GVPT368K. Credit only granted for ISRL349Y or GVPT368K. Relationships between the environment and different communities that share it, specifically in and around Israel, given the negative effects of climate change and environmental degradation throughout the Middle East. We will examine the ecological and environmental challenges Israel has faced over the years, the many innovative ways in which it has worked to overcome these challenges, and the tasks that still lie ahead. Finally, we will look at the nexus between sustainable development and sustainable peace within and between diverse communities.

0101	Adina Friedman Th 5:00pm - 7:30pm	Seats (Total: 35) ONLINE

ISRL350 **The End of the Israel-Arab Conflict??**

Violence between Jews/Israelis and Arabs/Palestinians on both an inter-communal and inter-state level has been pervasive in the Holy Land for over a century. However, in the past few years, Israel has signed treaties with several Arab countries and more are likely in the near future. Is the larger Israel-Arab conflict ended, or nearly so? This course will examine the last 30 years to understand what has changed about these conflicts and what remains, and then explore different scenarios as to how peace may be possible and what it might look like.

Obviously, everything connected with relations between Israel and Arab countries has been thrown into the air by the October 7 attack on Israel and Israel's subsequent assault on Gaza. While this course will still focus on the recent history and possible scenarios for peace, it will of course take into account the course and effects of the current war. Students are invited to bring their opinions and be ready to discuss them.

0101	Paul Scham TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0205

ISRL369C **Special Topics in Study Abroad; Israeli Society in Israeli Cinema**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL369I **Special Topics in Study Abroad; Socio-Economic, Political, Religious, and Ethnic Conflicts in Israel, and the Search For Common Ground**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL Italian Spring 2024

Students with no experience in the language are invited to register for ITAL103.

ITAL103 **Intensive Elementary Italian**

Prerequisite: Must have appropriate World Language Placement Test (WLPT) score. Restriction: Not open to fluent/native speakers of Italian. Credit only granted for: ITAL103 or ITAL121.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 15) JMZ 1124 JMZ 0120

0201	Alessandra Gavagni TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 15) JMZ 2120 JMZ 1103
0301	Joseph Falvo MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1215 ONLINE

ITAL169C **Special Topics in Study Abroad I; Italian Conversation**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169E **Special Topics in Study Abroad I; Elementary Italian I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169R **Special Topics in Study Abroad I; Introduction to Italian Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL203 **Intensive Intermediate Italian**

Prerequisite: ITAL103; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not have completed ITAL122; and must not be a fluent/native speaker of Italian. Credit only granted for: ITAL203 or ITAL122.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3122 JMZ 0118
0201	Valeria Federici MW 10:00am - 11:15am F 10:00am - 10:50am	Seats (Total: 15) EGR 1102 ONLINE

ITAL204 **Advanced Intermediate Italian**

Prerequisite: ITAL203 or equivalent; or must have appropriate World Language Placement Test (WLPT) score.

An intensive study of Italian language and culture. This course completes the sequence of ITAL 103 and 203. After a brief review of important material of Intermediate Italian (ITAL 203), we will cover the last four chapters of Parliamo italiano (Unita 9-12). ITAL 204 is designed to reinforce and deepen the students' knowledge of Italian and its idiomatic usage, and to improve their reading and writing skills through a more in-depth study of more complex grammatical forms. Students are encouraged to practice Italian using grammatical concepts in an active manner. There will be oral and written exercises, short readings, and vocabulary expansion. Special attention will be given to readings, oral comprehension and written compositions. To improve their listening and reading comprehension, students will also view and analyze film clips, and read short articles in newspapers and magazines on current events and global issues pertaining to Italy and the European Union.

0101	Mirella Vaglio MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 1124
0201	Alessandra Gavagni TuTh 3:30pm - 4:45pm	Seats (Total: 15) JMZ 3122

ITAL207 **Speaking and Writing in Italian**

Prerequisite: ITAL204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Italian.

An intensive upper intermediate language course that focuses on Italian speaking and writing. The course, which is taught entirely in Italian, is designed to reinforce and deepen the students' knowledge of the Italian language and its idiomatic usage, and to improve their speaking ability and listening comprehension. Students will be given practice both in speaking extemporaneously and giving oral reports written on a wide range of topics dealing with contemporary Italy. One of the main objectives of the course is to prepare students to take upper level courses (300-400 levels) in Italian language, literature, and culture

Contact department for information to register for this course.

ITAL269I **Special Topics in Study Abroad II; Intensive Intermediate Italian I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269R **Special Topics in Study Abroad II; Elementary Italian I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL301 **Italian Composition**

Prerequisite: ITAL207; or students who have taken courses with comparable content may contact the department.

Techniques of composition; grammatical analysis; various genres; vocabulary.

Contact department for information to register for this course.

ITAL311 **Advanced Oral Expression: Current Events**

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Oral expression; development of idiomatic forms and vocabulary to level of the Italian press.

Contact department for information to register for this course.

ITAL362 **Survey of Italian Society and Culture: From the 1980s to thePresent Day**

Prerequisite: ITAL207; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Development of Italian society and culture from the 1980s to the present. Literature, cinema, economy, popular culture, daily life. Taught in Italian.

Contact department for information to register for this course.

ITAL369W **Special Topics in Study Abroad III; Composition and Style**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL386 **Experiential Learning**

(Perm req)

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ITAL399 **Directed Study in Italian**

(Perm req)

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

Contact department for information to register for this course.

ITAL411 **Monsters and Demons: the Faces of Evil in Dante's Inferno**

An interdisciplinary study of Dante's Inferno as represented in the Divine Comedy. Special emphasis on Dante's own portrayal of monsters and demons and their roles in the poet's eschatological vision of Hell.Taught in English

0101	Joseph Falvo	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	JMZ 2122

ITAL421 **The Italian Renaissance**

Credit only granted for: ITAL421 or ITAL422.

A study of major trends of thought in Renaissance literature, art, and science. Taught in English.

Contact department for information to register for this course.

ITAL431 **Italian Civilization in Translation**

Credit only granted for: ITAL431 or ITAL432.

Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. Taught in English.

Contact department for information to register for this course.

ITAL473 **Italian Cinema II (In Translation)**

Cross-listed with: CINE431. Credit only granted for: ITAL473, CINE431 or FILM431. Formerly: FILM431.

A study of Italian society and culture through the medium of film from the mid 1970's to the present. Taught in English.

0101	Mauro Resmini	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 3205

ITAL475 **The Italian Opera Libretto in English**

Prerequisite: Must have completed one course in literature. Credit only granted for: ITAL475 or ITAL476.

History and analysis of Italian opera librettos from Monteverdi through Mozart to Verdi and Puccini. Taught in English.

Cross-listed with MUSC448L. Credit will be granted for ITAL475 or MUSC44 8 L.

Contact department for information to register for this course.

ITAL478A **Colloquium in Italian; Italian Cinema II (In Translation)**

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Corequisite: ITAL473.

0101	Mauro Resmini	Seats (Total: 5)
	Contact instructor or department for details.	

ITAL478D **Colloquium in Italian; Monsters and Demons: the Faces of Evil in Dante's Inferno**

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Co-requisite: ITAL411. Colloquium, section taught in Italian to accompany 400-level Italian courses taught in English.

0101	Joseph Falvo	Seats (Total: 5)
	Contact instructor or department for details.	

ITAL478E **Colloquium in Italian; Made in Italy: Fashion, Design and Art that Made a Nation s Brand**

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Corequisite: ITAL499F.

0101	Valeria Federici Contact instructor or department for details.	Seats (Total: 5)

ITAL499 **Special Topics in Italian Studies**

(Perm req)

Contact department for information to register for this course.

ITAL499F **Special Topics in Italian Studies; Made in Italy: Fashion, Design and Art that Made a Nation's Brand**

Gucci, Prada, Ferrari, Vespa, Loren, De Sica, they all sound familiar, and in one sentence, they all represent the so-called "Made in Italy." But what does "Made in Italy" represent? When did it become a symbol of Italian modern society? Through an overview of concepts such as Italianita, Mediterraneita, and artigianalita, the course investigates the processes at the core of the Italian modern creative industry that inform fashion, design, art, cinema, and more. The course makes use of awide range of multimedia resources, movies, and literary materials. It features guest lecturers from Italian businesses. Taught in English.

0101	Valeria Federici MWF 12:00pm - 12:50pm	Seats (Total: 25) JMZ 2123

JAPN Japanese Spring 2024

JAPN102 **Elementary Japanese II**

Prerequisite: Minimum grade of C- in JAPN101; or appropriate World Language Placement Test (WLPT) score.

Continued introduction to the basic spoken patterns of contemporary Japanese.

0101	Makiko Inoue, Sanshiroh Ogawa MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 0205 JMZ 0205
0201	Makiko Inoue, Sanshiroh Ogawa MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 0205 JMZ 0205
0301	Makiko Inoue, Sanshiroh Ogawa MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 0205 JMZ 0205

JAPN202 **Intermediate Japanese II**

Prerequisite: Minimum grade of C- in JAPN201; or appropriate World Language Placement Test (WLPT) score.

Contemporary spoken and written Japanese.

0101	Kumiko Akikawa MWF 11:00am - 12:50pm	Seats (Total: 15) JMZ 0120
0201	Kumiko Akikawa MWF 1:00pm - 2:50pm	Seats (Total: 15) JMZ 0120

JAPN302 **Advanced Japanese II**

Prerequisite: Minimum grade of C- in JAPN301; or permission of instructor.

Continued readings in varied modern texts and advanced conversation and oral comprehension.

0101	Mari Hamada MWF 10:00am - 11:50am	Seats (Total: 15) JMZ 1226
0201	Mari Hamada MWF 12:00pm - 1:50pm	Seats (Total: 15) JMZ 1226

JAPN386 **Experiential Learning**

(Perm req)

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

JAPN398L **Linguistic History of Japan**

Prerequisite: JAPN 201.

Using a linguistic lens, this course offers a historical overview of the Japanese language, focusing on the key stages that have culminated in Contemporary Modern Japanese. Taught in English. Prereq: JAPAN 201.

0101	Hitomi Minamida MW 2:00pm - 3:15pm	Seats (Total: 15) ONLINE

JAPN402 **Readings in Japanese Cultural Studies**

Prerequisite: Minimum grade of C- in JAPN302; or permission of instructor.

Development of advanced reading, vocabulary, grammar, and translation skills through selected readings in Japanese drawn from the fields of history, social sciences, cultural studies, film studies, and popular culture.

0101	Jyana Browne	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 1226

JAPN407 **The Art of Translation**

Prerequisite: 1 course with a minimum grade of C- from (JAPN401, JAPN402); or students who have taken courses with comparable content may contact the department.

Theory and practice of translation. Variety of genres. Japanese to English.

Contact department for information to register for this course.

JAPN425 **The Atomic Bomb in Literature and Memory**

Study of declassified documents and commentary on the United States decision to use the bomb in 1945, the many ways Japanese writers have attempted to express their indescribable experiences in Hiroshima and Nagasaki, and the shaping of historical narratives and national identities in post-war Japan and the U.S. Taught in English.

0101	Michele Mason	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 0125

JAPN447 **Technologies of Japanese Performance**

Credit only granted for: JAPN498P or JAPN447. Formerly: JAPN498P.

Explores technologies of performance in Japan across the centuries. We will focus on concepts of likeness and liveness as they manifest in performance's mythical origins, the traditions of noh drama, the popular, commercial theatres of kabuki, bunraku, and Takarazuka, and contemporary experiments with robotics, Vocaloids, and other new technologies. Taught in English.

0101	Jyana Browne	Seats (Total: 25)
	Th 3:30pm - 6:00pm	JMZ 3205

JAPN499 **Directed Study in Japanese**

(Perm req)

Contact department for information to register for this course.

JOUR Journalism Spring 2024

JOUR130 **Self-Presentation in the Age of YouTube**

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285. Additional information: May not count toward the Journalism major.

Students, as they make use of evolving technologies, need to be able to present themselves effectively in front of any number of different audiences through any number of different outlets. Whether in an interview on radio, a guest presentation at a conference, in comments on a video blog, in commentary on TV, in the lead on a self-produced YouTube video, or as spokesperson in front of investors or management, professionals need strong oral communication skills. This class focuses on strengthening those skills through active individual and group presentations, as well as, through discussion of key techniques and group critique of presentation publicly available in the social media space on sites such as YouTube.

0201	Amber Moore TuTh 5:00pm - 6:15pm	Seats (Total: 22) KNI 1103

JOUR150 **Introduction to Mass Communication**

Additional information: Not applicable toward journalism major.

Survey of the functions and effects of the mass media in the United States. A consumer's introduction to newspapers, television, radio, film, sound recording, books, magazines, and new media technology.

0101	Edward Alwood TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 1105
0201	Sara Browning TuTh 9:30am - 10:45am	Seats (Total: 30) KNI 1103
0301	Ho Chun Wong Class time/details on ELMs	Seats (Total: 30) ONLINE
0401	Denitsa Yotova Class time/details on ELMs	Seats (Total: 30) ONLINE
0501	Edward Alwood TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 1105
0601	Denitsa Yotova Class time/details on ELMs	Seats (Total: 30) ONLINE

JOUR152 **Introduction to Storytelling with Code**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR200.

An introduction to the ways markup and programming languages and computational thinking are transforming news reporting and storytelling.

0201	Naeemul Hassan **Meets March 14, 2024 - May 9, 2024** Class time/details on ELMs	Seats (Total: 100) ONLINE

JOUR175 **Media Literacy**

Additional information: Not applicable toward journalism major.

An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

Synchronous online meetings 1/24 from 6:30-8pm EST, 2/28 from 6:30-8pm EST, 4/3 from 6:30-8pm EST and 5/1 from 6:30-8pm EST.

0201	Susan Moeller Class time/details on ELMs	Seats (Total: 45) ONLINE
0301	Susan Moeller Class time/details on ELMs	Seats (Total: 45) ONLINE
0401	Susan Moeller Class time/details on ELMs	Seats (Total: 45) ONLINE

JOUR181 **Grammar for Journalists**

Credit only granted for: ENGL181, ENGL281, or JOUR181.

The basic grammatical structures of standard American written English and its conventions of punctuation, diction and usage in journalistic writing.

0101	Nicki Kern M 10:00am - 10:50am	Seats (Total: 144) ONLINE

JOUR199 **Survey Apprenticeship**

(Perm req)

College-monitored experience in approved mass-communications organizations and industries.

Prerequisite: permission of department. Repeatable to 6 credits if content differs. Students must meet with the Internship Director in KNI 1100 to receive permission to register. No requests to register after the Schedule Adjustment Period will be honored.

0101	Karen Denny Contact instructor or department for details.	Seats (Total: 35)

JOUR200 **Journalism History, Roles and Structures**

Introduction to the study of journalism from the standpoint of media history and sociology.

0101	Carole Lee MW 3:30pm - 4:45pm	Seats (Total: 17) KNI 1208
0201	Christoph Mergerson TuTh 11:00am - 12:15pm	Seats (Total: 35) KNI 3202

JOUR201 **News Writing and Reporting I**

(Perm req)

Prerequisite: Minimum grade of C- in ENGL101, JOUR181, and JOUR200; and permission of JOUR-Philip Merrill College of Journalism. Restriction: For students intending to be journalism majors; and permission of JOUR-Philip Merrill College of Journalism.

Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills. Students who earned 80% or higher on the JOUR181 diagnostic are exempt from the JOUR181 prerequisite.

For students intending to be journalism majors.

0101	David Oliver MW 5:00pm - 6:50pm	Seats (Total: 18) KNI 1101
0201	Joseph Weber TuTh 7:00pm - 8:50pm	Seats (Total: 18) KNI 2103
0401	Merrilee Cox MW 12:00pm - 1:50pm	Seats (Total: 18) KNI 1101
0601	Christine Harvey TuTh 10:00am - 11:50am	Seats (Total: 18) KNI 1101
0801	Mikayla Newton TuTh 5:00pm - 6:50pm	Seats (Total: 18) KNI 2103

JOUR202 **News Editing**

(Perm req)

Prerequisite: JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Copy editing, fact checking, verification and research across media platforms, including social, with consideration of story play and placement, graphic principles, headlines and SEO.

0201	Jodi Friedman	Seats (Total: 18)
	TuTh 9:00am - 10:50am	KNI 2103

JOUR282 **Beyond Facebook: How Social Media are Transforming Society, Culture, Business and Politics**

Credit only granted for: JOUR289F or JOUR282. Formerly: JOUR289F.

How has social media changed the world, and how has the world changed social media? This course explores how social media has influenced relationships, culture, industry, politics, and the information environment, as well as how significant global events and technological advancements have contributed to the evolution of social media. This course gives students a broad contextual understanding of social media that they may apply in their daily lives as well as future academic inquiry.

0101	Wei-Ping Li	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

JOUR283 **Probing War: Investigative Narratives and American Conflicts**

Credit only granted for: JOUR283 or JOUR289J. Formerly: JOUR289J.

What role should the American news media play when the United States is at war? Students will explore the realities of war through the work of journalists who pushed beyond the daily headlines, some risking life and limb, to challenge official versions and document uncomfortable realities about American conflicts.

0101	Christopher Hanson	Seats (Total: 30)
	MW 11:00am - 12:15pm	KNI 1208

JOUR284 **Scandal: Exposing Corruption, Justice, and Vice in America**

Credit only granted for: JOUR289P, JOUR284 or HONR239J. Formerly: JOUR289P, HONR239J .

What are the ingredients of a juicy scandal? Money? Sex? Power? How are scandals uncovered? Why does society punish some scoundrels but not others? Come explore both serious and salacious scandals with a professor who's an expert in both--and who once exposed many scandals himself when he was an investigative reporter. This class examines scandals in politics, science, religion, social media, business, government, sports, and higher education; feeding frenzies, tabloid scandalmongering, undercover reporting, apologies, and cancel culture. Learn why even trivial scandals matter--and how scandals reflect what we value and ultimately who we are.

0101	Mark Feldstein	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	KNI 1208

JOUR289I **Information 3.0: Exploring Technological Tools**

Students will expand their understanding of various digital information and the issues it raises, evaluate media research investigating how users interact with information for different purposes, analyze how diverse audiences seek, select, share and produce various types of digital information, and evaluate the ethics related to digital privacy and security.

0101	Ronald Yaros Tu 11:00am - 12:15pm Class time/details on ELMs *Students in this section will use a custom mobile app.*	Seats (Total: 70) ONLINE ONLINE

JOUR320 **News Writing and Reporting II: Multiplatform**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR152; and minimum grade of C- in JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation. Due to rigorous publication requirement, plan your schedule accordingly.

0201	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 17) KNI 1101
0401	Clarence Williams TuTh 11:30am - 1:20pm	Seats (Total: 18) KNI 2103

JOUR320U **News Writing and Reporting II: Multiplatform**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR152; and minimum grade of C- in JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation. Due to rigorous publication requirement, plan your schedule accordingly.

0101	Jerry Zremski TuTh 2:00pm - 3:50pm *The focus of this section will be a reporting project for the Local News Network at the University of Maryland's Philip Merrill College of Journalism. Students must apply to enroll in this section.*	Seats (Total: 18) KNI 2103

JOUR325 **Capital News Service Bureau**

(Perm req)

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism.

Advanced journalism training. Students report as part of college's Capital News Service program.

Washington, DC students should enroll in section 0101. Annapolis students should enroll in section 0201. College Park students should enroll in section 0301 and 0401.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Christianne Parsons Contact instructor or department for details.	Seats (Total: 10)
0301	Adam Marton Contact instructor or department for details.	Seats (Total: 10)
0401	Stacey Decker Contact instructor or department for details.	Seats (Total: 10)

JOUR327 **Urban Affairs Reporting**

(Perm req)

Prerequisite: JOUR320; and permission of instructor. Jointly offered with JOUR627. Credit only granted for: JOUR327 or JOUR627.

Students are immersed in coverage of issues affecting cities, working on a semester-long multi-platform reporting project based in Baltimore.

0101	Rob Wells M 1:45pm - 4:30pm	Seats (Total: 8) KNI 1210

JOUR328C **Special Topics in News Writing and Reporting; Journalism Compass: Navigating Your College Path**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR200 or permission of instructor. Students will learn how to maximize your time in college so you can get a position in journalism (internship or job) that interests you. Information will include expectations and opportunities that are out there, and how to make the most of resumes and cover letters, classes, networking and professionalism and more.

0101	Karen Denny **Meets March 14, 2024 - May 9, 2024** M 11:30am - 1:35pm	Seats (Total: 18) KNI 3202

JOUR328G **Special Topics in News Writing and Reporting; Enterprise Sports Reporting**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will work as a team on a sports enterprise project. Previous topics have included gender equity in sports, youth sports & the media, betting and college sports, the economic impact of a new stadium on a city, and the future of football.

0101	Mark Hyman	Seats (Total: 8)
	W 12:30pm - 3:15pm	KNI 2103

JOUR328I **Special Topics in News Writing and Reporting; Turning Your Degree into Multiple Career Options**

Advanced training and practice in writing and reporting news.

Restriction: Must have earned at least 60 credits. Whether you love your major or hate it, it doesn't matter. That's because the many skills you're learning in journalism and other humanities majors like -- English, History, Government & Politics, Philosophy, Sociology, etc -- are transferable into countless industries. You'll learn step-by-step how to inventory the most valuable skills you've gained inside and outside the classroom and translate them into tangible job functions that exist in almost any industry you can imagine. From Aeronautics to Architecture, from Hedge Funds to Health Care, from IG & TikTok from Intelligence & Foreign Affairs, this will be a course unlike any other you've taken in college because its sole focus is to help you identify at least three career options you'd be excited to pursue after you graduate and then show you how to use LinkedIn to uncover those jobs and internships.

0101	Andrea Koppel	Seats (Total: 20)
	Meets January 24, 2024 - March 9, 2024	
	M 1:30pm - 2:20pm	KNI 3200
	Class time/details on ELMs	ONLINE
	The first class and the last class meet in-person and the other session are asynchronous.	

JOUR328K **Special Topics in News Writing and Reporting; Business and Economic Reporting**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Students will explore why economic and business themes are among the top stories generating reader interest. Topics vary each semester but can focus on the economic impact of immigration, employment, income inequality, wage stagnation, trade wars and affordable housing. Students will learn to identify newsworthy stories and interpret and integrate numbers and financial data into stories in a compelling way.

0101	Constance Ford M 2:00pm - 4:45pm	Seats (Total: 9) KNI 1101

JOUR328O **Special Topics in News Writing and Reporting; News Application Development**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR472 or permission of instructor (dpwillis@umd.edu). A class that combines a survey of work in this area, featuring work done at organizations like ProPublica, the Associated Press, the San Francisco Chronicle and others, with practical skills in reporting and building news applications. Students will review and critique existing news apps, read materials from those who built them and develop projects in small groups that display data in a news app style. Key skills gained include: backend development, frontend development, command-line usage and some data analysis.

0101	Derek Willis MW 3:00pm - 4:50pm	Seats (Total: 9) KNI 2107

JOUR328T **Special Topics in News Writing and Reporting; Data Visualization**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR352. This course is focused on data visualization in the service of journalistic storytelling. Students will learn data visualization theory, best practices and methods, including how to create data visualizations using a variety of tools.

0101	Adam Marton W 12:00pm - 2:45pm	Seats (Total: 13) KNI 2105

JOUR328V **Special Topics in News Writing and Reporting; Covering Comic Book Culture in Entertainment**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Comic book culture's evolving impact in entertainment has been vast and rapidly growing. This course will look at the humble beginnings of comic book culture in entertainment, from the comic books themselves, to the adaptations that have become big business for movies, television, streaming and animation as well as how to write on/cover those moments.

0101	David Betancourt Tu 6:00pm - 8:45pm	Seats (Total: 13) KNI 3200

JOUR328Z **Special Topics in News Writing and Reporting; Making a Career as a Freelance Journalist**

(Perm req)

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR201. Freelancing can give early-career journalists their first big break in the industry. This course will cover the basics of launching a career as a freelance reporter: pitching, setting rates, forming relationships with editors, managing invoices and doing your taxes.

0101	chelsea Cirruzzo **Meets January 24, 2024 - March 9, 2024** M 5:00pm - 7:05pm	Seats (Total: 16) KNI 2103

JOUR334 **Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR360. Formerly: JOUR368L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. Students will work together to produce a complete radio broadcast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond Tu 5:30pm - 8:15pm *Adobe Audition proficiency required.*	Seats (Total: 7) KNI 1101

JOUR347 **News Videography**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR603. Credit only granted for: JOUR262, JOUR347 or JOUR603. Formerly: JOUR262.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 10) TWS 0222B
0201	Alanna Kopania MW 11:00am - 12:50pm	Seats (Total: 12) TWS 0222B
0301	Alexander Flum M 11:00am - 1:45pm	Seats (Total: 12) KNI 2103

0401	Alanna Kopania MW 2:00pm - 3:50pm	Seats (Total: 10) TWS 0222B
0501	Kara Dixon M 5:00pm - 7:45pm	Seats (Total: 12) KNI 2107
0601	Alanna Kopania MW 4:00pm - 5:50pm	Seats (Total: 11) TWS 0222B

JOUR352 **Interactive Design and Development**

(Perm req)

Prerequisite: JOUR152; and JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Or permission of JOUR-Philip Merrill College of Journalism. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR652. Credit only granted for: JOUR352 or JOUR652.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools, JavaScript libraries, multimedia and text to create charts, timelines, maps and other forms of nonfiction storytelling.

0201	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 16) KNI 1101
0401	Stacey Decker M 11:00am - 1:45pm	Seats (Total: 18) KNI 2105
0501	Kalani Gordon Th 5:30pm - 8:15pm	Seats (Total: 18) ONLINE

JOUR353 **News Bureau: Multimedia Reporting**

(Perm req)

Prerequisite: JOUR352; and permission of JOUR-Philip Merrill College of Journalism; and (JOUR320 or JOUR360).

Advanced reporting and writing in an online environment focusing on multimedia, non-traditional storytelling and investigative reporting.

Contact instructor to obtain permission.

0101	James Carroll Contact instructor or department for details. *This section is for Washington D.C. students.*	Seats (Total: 9)

0201	Christianne Parsons Contact instructor or department for details. *This section is for Annapolis students.*	Seats (Total: 9)
0401	Deborah Nelson Contact instructor or department for details. *This section is for Investigative Reporting students.*	Seats (Total: 9)

JOUR355 **News Bureau: Multimedia Editing and Production**

(Perm req)

Prerequisite: JOUR320 or JOUR360; and JOUR352; and permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as multimedia and social media editors and producers, building interactive content and special reports.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 10)
0201	Stacey Decker Contact instructor or department for details.	Seats (Total: 10)
0301	Sean Mussenden Contact instructor or department for details.	Seats (Total: 4)
0401	Christianne Parsons Contact instructor or department for details.	Seats (Total: 4)
0501	James Carroll Contact instructor or department for details.	Seats (Total: 4)
0601	Deborah Nelson Contact instructor or department for details.	Seats (Total: 4)

JOUR357 **Capital News Service Broadcast Immersion**

(Perm req)

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Melvin Coffee Contact instructor or department for details.	Seats (Total: 10)

JOUR360 **News Writing and Reporting II: Broadcast**

(Perm req)

Prerequisite: Minimum grade of C- in JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Writing and reporting for broadcast media: production of news stories.

0101	Brandon Benavides TuTh 11:00am - 12:50pm	Seats (Total: 18) KNI 2107	
0301	Alison Burns TuTh 10:00am - 11:50am	Seats (Total: 17) KNI 2105	

JOUR361 **Television Reporting and Production**

(Perm req)

Prerequisite: JOUR262 and JOUR360.

Writing and editing for the broadcast media. Interpretive and documentary news stories.

Students will spend several hours per week on field assignments, in addition to scheduled class sessions.

0101	Linh Bui TuTh 12:00pm - 1:50pm	Seats (Total: 12) TWS 0222B	

JOUR362 **Broadcast News Producing**

(Perm req)

Prerequisite: JOUR262 and JOUR360; and must have completed or be concurrently enrolled in JOUR361.

Producing TV news.

0101	Cindy Wright Tu 6:30pm - 8:00pm Tu 2:00pm - 6:30pm	Seats (Total: 2) TWS 0117 TWS 0117	 Lab
0103	Cindy Wright Tu 6:30pm - 8:00pm Th 2:00pm - 6:30pm	Seats (Total: 4) TWS 0117 TWS 0117	 Lab

JOUR364 **Advanced Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR 334. Jointly offered with: JOUR664.

Students will receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 9) KNI 3210

JOUR367 **Broadcast News Bureau**

(Perm req)

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the college's Capital News Service program.

0101	Melvin Coffee Contact instructor or department for details.	Seats (Total: 10)

JOUR368A **Topics in Broadcast and Electronic Media; Sports Reporting: Broadcast and Storytelling**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262, JOUR320 and JOUR360. This class will focus on the art of storytelling for television. Students will get practical, hands-on experience in presentation, learning how to master interviewing skills as well as reporting and anchoring with a heavy focus on the details of writing for broadcast. Students will work creatively and collaboratively to understand how to take a story from an idea to an on-air finished product.

0101	Robert Carlin MW 4:00pm - 5:50pm	Seats (Total: 9) TWS 0222A

JOUR368K **Topics in Broadcast and Electronic Media; Video Lab**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262. Recommended: JOUR361, JOUR368I or JOUR368X. This course focuses on the future of video journalism, from documentary to 360 videos. In the class, students can experiment with cinematic techniques, motion graphics, choose-your-own-adventure style videos and more. The class is heavily influenced by independent documentary filmmaking and video storytelling. Students will be required to contribute to a weekly behind-the-scenes vlog of our class documenting the work we do.

0101	Joshua Davidsburg Tu 2:00pm - 4:45pm	Seats (Total: 9) TWS 0222A

JOUR368L **Topics in Broadcast and Electronic Media; Introduction to Studio Production**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 or permission of instructor - nsteven5@umd.edu. This course will take you through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. Labs will focus on putting together and executing a live newscast production. Students will also be able to go on live shots with reporters to run camera/lighting.

0101	Nathaniel Stevens TuTh 4:00pm - 6:00pm	Seats (Total: 10) TWS 0116

JOUR368N **Topics in Broadcast and Electronic Media; Advanced Photojournalism**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR370. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay over time, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen W 4:00pm - 6:45pm	Seats (Total: 12) KNI 2105

JOUR368O **Topics in Broadcast and Electronic Media; Advanced Studio Production**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR368L or permission of instructor. This course will take you through every production aspect related to studio production and work as production support for live sports or video game news shows. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. It will also include post-production promo pieces for live shows, as well as social media components that are production-related.

0101	Nathaniel Stevens W 4:00pm - 6:45pm	Seats (Total: 9) TWS 0116

JOUR368U **Topics in Broadcast and Electronic Media; Virtual Production Using Unreal Engine**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR368L or permission of instructor. This course will explore the various uses of the Unreal Engine, provide students with hands-on experience with the software, and take students through the process of creating a virtual environment. It will feature gaming and video concepts that are relevant to the production and video game industries.

0101	Nathaniel Stevens W 12:30pm - 3:15pm	Seats (Total: 9) TWS 0116

JOUR368Y **Topics in Broadcast and Electronic Media; Sports Producing**

(Perm req)

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR360; or JOUR320. This class will take an analytical look at sports TV and sports content by deconstructing shows. We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" and the importance of identifying and telling good stories. We will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 11) KNI 2103

JOUR370 **Photojournalism**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR370 or JOUR670. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0101	Graham Cullen M 10:00am - 12:45pm	Seats (Total: 12) TWS 0222A
0301	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 13) KNI 1101

0501	Jaclyn Borowski M 5:00pm - 7:45pm	Seats (Total: 14) KNI 2105
0701	Timothy Jacobsen F 9:00am - 11:45am	Seats (Total: 14) KNI 1101

JOUR382 **Sports Reporting and Writing**

(Perm req)

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR682. Credit only granted for: JOUR328B, JOUR382 or JOUR682. Formerly: JOUR328B.

Gives students full and wide-ranging instruction in all aspects of sports reporting and writing, including how to report, write, edit and lay out sports stories, incorporating photography and multimedia. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kevin Blackistone M 10:00am - 11:15am W 10:00am - 11:15am	Seats (Total: 8) KNI 3202 KNI 2105

JOUR389I **News Coverage of Special Topics; Investigative Reporting**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320. Introduces students to the skills and techniques of investigative reporting. Students will learn how to report, write and publish investigative stories.

0101	James Risen M 2:00pm - 4:45pm	Seats (Total: 15) KNI 2103

JOUR389L **News Coverage of Special Topics; Local News Investigation**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR320. Students in this class will learn and put into practice classic investigative news techniques, including using data to find local officials and other people to interview; uncovering a network of confidential sources; approaching and interviewing confidential sources; gaining trust in order to gain hard truths; cultivating public officials as confidential and on-the-record sources; finding supporting documents and other public and non-public records. This is not a data class. The class emphasis is on finding, preparing for, and interviewing people with sensitive information. The subject of the investigation is still confidential.

0101	Dana Priest	Seats (Total: 8)
	M 9:45am - 12:30pm	KNI 3200

JOUR389W **News Coverage of Special Topics; News Alchemy: Journalism and Artificial Intelligence**

(Perm req)

Advanced training and practice in writing and reporting news in one specialized field of interest.

Prerequisite: JOUR201 or permission of instructor. Students will explore and evaluate systems of Artificial Intelligence, learning how to use (and not use) them for journalism tasks. They will debate the ethical implications of bringing AI into news processes and experiment with building AI into everyday reporting.

0101	Derek Willis	Seats (Total: 15)
	TuTh 9:00am - 10:50am	KNI 2107

JOUR396 **Supervised Internship**

(Perm req)

Prerequisite: Must have earned a grade of C- or better in JOUR201. Restriction: Must be a major in the JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR326, JOUR366, or JOUR396.

Students will complete a minimum of 90 hours in a supervised journalism internship over a minimum of 10 weeks in spring and fall, and eight weeks in summer. Emphasis is on relating academic training to professional experience. To enroll, students must do the following: Fill out the internship proposal form, have their internship supervisor fill it out, and meet with the college's internship director to receive permission to register. No requests to register after the Schedule Adjustment Period will be granted.

0101	Karen Denny	Seats (Total: 75)
	Contact instructor or department for details.	

JOUR398 **Independent Study**

(Perm req)

Individual projects in journalism.

Contact department for information to register for this course.

JOUR402 **Journalism Law and Ethics**

(Perm req)

Prerequisite: JOUR201. Credit only granted for: JOUR402 OR JOUR400 and JOUR300.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Megan Fromm Tu 3:30pm - 4:45pm Th 3:30pm - 4:45pm	Seats (Total: 28) ONLINE KNI 3202
0201	Megan Fromm Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 28) ONLINE KNI 3202

JOUR405 **Breaking News With Numbers: Statistics for Journalists**

(Perm req)

Prerequisite: Minimum grade of C- in JOUR201; and (MATH107 or MATH110; or must have completed a higher level math course). Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Common statistical tools, software and data visualization techniques will be used to allow students to analyze data and solve problems relevant to reporting and writing about politics, sports, criminal justice, business and other fields.

0101	Tom Brune Class time/details on ELMs	Seats (Total: 38) ONLINE
0201	Derek Willis Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 18) KNI 3200 ONLINE

JOUR452 **Women in the Media**

Cross-listed with: WGSS452. Credit only granted for: JOUR452, WMST452 or WGSS452. Formerly: WMST 452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Gea Ujcic TuTh 3:30pm - 4:45pm	Seats (Total: 30) KNI 1103

JOUR453 **Media Coverage of Diversity**

Restriction: Junior standing or higher.

Analysis of media coverage of issues relating to diversity in the United States, with special attention to race, ethnicity, class, gender, sexual orientation and religious affiliation.

Cross-listed with AASP499N. Credit only granted for JOUR453 or AASP499N.

0101	Anne Rosen	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KNI 3202

JOUR455 **Media Entrepreneurship**

Basic business and entrepreneurship concepts will be covered and will explore how technology is transforming the business of media. Students develop and pitch ideas for media businesses, learn startup basics, do exercises in Internet advertising and business plan analysis, use social networks and other digital communication tools, and perform other hands-on exercises in business development and presentation.

PCJ1	Thomas Davidson	Seats (Total: 15)
	Sa 1:30pm - 5:15pm Class time/details on ELMs	KNI 2105 ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

JOUR456 **Literature in Journalism**

Credit only granted for: JOUR456 or JOUR673.

From Truman Capote's In Cold Blood to Mark Bowden's Black Hawk Down, students will examine how literary works can help writers approach a subject in a different way than more traditional forms of journalism, including the advantages and limitations of the style.

0101	Christopher Hanson	Seats (Total: 18)
	Tu 4:15pm - 7:00pm	KNI 1208

JOUR458A **Special Topics in Journalism; Machine Editors: Search Engines, Social Media, and The News**

Issues of special concerns and current interest.

Students will explore the deep and far-reaching impact that digital platforms (search engines and social media) have in the distribution of news. Through readings, discussions, and in-class exercises, we will investigate how these algorithmically-defined mediators have become external curators and editors of news, and how journalists have been adapting, resisting, or reframing their practices towards them.

0101	Daniel Trielli Paiva Da Silva	Seats (Total: 18)
	W 1:00pm - 3:45pm	KNI 3200

JOUR458B **Special Topics in Journalism; Sports Media Today**

Issues of special concerns and current interest.

Students will discuss working with various organizations' communications/media relations staff, coaches and players; distributing news of the organizations; and creating/maintaining methods for disseminating that news to the public in an honest and forthright manner. Also, traditional, digital and social media elements will be explored. Restriction: Junior Standing or higher.

0101	Rose DiPaula	Seats (Total: 27)
	Tu 3:30pm - 6:15pm	KNI 1105

JOUR458F **Special Topics in Journalism; Campaign '24: An Election Unlike Any Other**

Issues of special concerns and current interest.

You will study the daily coverage of the year's biggest story, where one frontrunner is indicted and the other faces investigation by a special counsel. We'll examine critical reporting and storytelling done under extreme deadline pressure.

0101	Tom Bettag	Seats (Total: 15)
	TuTh 10:30am - 11:45am	KNI 1109

JOUR458J **Special Topics in Journalism; Covering Social Justice**

Issues of special concerns and current interest.

Crosslisted with AASP499L Credit only granted for: JOUR458J or AASP499L. The objective of this class is to expose students to the best journalistic practices in covering race and social justice issues. Students will explore how social justice is covered in the media through readings, discussions, guest lectures and research assignments to help students understand the history and background of social justice and how reporters cover these issues. Students will develop critical analytical skills through their research and will write a reported essay about a national or international social justice issue impacting society. This course is taught by an award-winning journalist who continues to cover social issues.

0101	DeNeen Brown	Seats (Total: 18)
	M 2:00pm - 4:45pm	KNI 3202

JOUR458V **Special Topics in Journalism; The Power of the Writing Voice: Covering Celebrities, Art Exhibits, Concerts and Theatre**

Issues of special concerns and current interest.

Students will be introduced to writing journalism profiles of celebrities, covering music concerts, art exhibitions and theatrical productions for "Style" sections of newspapers and magazines.

0101	DeNeen Brown	Seats (Total: 20)
	W 3:00pm - 5:45pm	KNI 3202

JOUR459B **Special Topics in Journalism; European Mass Media**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459F **Special Topics in Journalism; Media in War and Crisis**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459I **Special Topics in Journalism; History of Investigative Journalism**

Issues of special concern and current interest. Open to all students.

Students will learn the history of investigative journalism in the U.S., focusing on key time periods from colonial times to the present.

0101	Mark Feldstein Tu 2:00pm - 4:45pm	Seats (Total: 13) KNI 2109

JOUR459K **Special Topics in Journalism; Global Media and International Journalism in the 21st Century**

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459P **Special Topics in Journalism; Censorship and Disinformation in the 21st Century: The New Global War for Political Power**

Issues of special concern and current interest. Open to all students.

We are living in unprecedented times, engaged in a fierce battle over the control of information as the precursor to political power. The internet, tech companies and President Donald Trump delivered us to this historic place, as did the aspirations for democratic government overseas and the authoritarian reactions against those instincts and movements. We will examine the two parallel movements that define this era: disinformation as it spread from Russia in 2000 westward to the United States and state censorship as it exploded across the globe in reaction to the powerful, but short-lived 2012 Arab Spring. Can these instruments of authoritarianism be stopped?

0101	Dana Priest M 2:30pm - 5:15pm	Seats (Total: 18) KNI 3200

JOUR459Y **Special Topics in Journalism; Israel in Regional, International, and U.S. Media and Social Media**

Issues of special concern and current interest. Open to all students.

Cross-listed with ISRL329Y. Credit only granted for ISRL329Y or JOUR459Y. This course offers a comprehensive exploration of the multifaceted relationship between Israel and the media landscape in the regional, international, and U.S. media landscapes, providing students with the tools to critically analyze and understand the complex narratives on Israel, Arab-Israeli, Israeli-Palestinian affairs and the dynamics at play. Students will delve into the historical, cultural, and political context that shapes the portrayal of Israel in traditional media outlets, as well as the transformative power of social media platforms.

0101	Marwa Maziad TuTh 12:30pm - 1:45pm	Seats (Total: 30) ONLINE

JOUR459Z **Special Topics in Journalism; Race, Journalism, and Democracy in the United States**

Issues of special concern and current interest. Open to all students.

Crosslisted with AASP499M Credit only granted for: JOUR459Z or AASP499M This course provides a theoretical and practical foundation for covering news about, and of particular interest to, racially and ethnically diverse communities. We will examine theories of race, ethnicity, and systemic racism in the United States, explore the effects of racial disparities, and discuss how journalism can best serve democracy in a racially diverse society. We will also listen to the experiences of diverse journalists in today's profession and discuss recent racial controversies in the industry.

0101	Christoph Mergerson TuTh 2:00pm - 3:15pm	Seats (Total: 25) KNI 1208

JOUR471 **Follow the Money: Reporting on Business**

(Perm req)

Prerequisite: Must have completed a university statistics course. Restriction: By permission of the College of Journalism. Credit only granted for: JOUR479C or JOUR471. Formerly: JOUR479C.

Business and economics reporting is one of the strongest sectors of journalism with lucrative employment opportunities. This class, designed for journalism and non-journalism majors, introduces students to the main economic and business themes that dominate news coverage. Topics will include: corporate money and power in Washington, the ups and downs of the stock market, rising income inequality, the immigration crisis, why we have a trade war with China and technology disruptors. This class will be helpful to students who want to enhance their career opportunities by understanding how the economy works, why globalization is important and how the biggest corporations--including technology companies--have such a big influence on the way we live.

0101	Constance Ford MW 12:30pm - 1:45pm	Seats (Total: 15) KNI 2107

JOUR472 **Data Journalism**

(Perm req)

Prerequisite: JOUR320 or JOUR360. Jointly offered with: JOUR772. Credit only granted for: JOUR472 or JOUR772.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

Prerequisite: JOUR320 or JOUR360. Computer and online data acquisition; analytical methods for writing and reporting news.

0101	Daniel Trielli Paiva Da Silva Tu 12:00pm - 1:50pm Th 12:00pm - 1:50pm	Seats (Total: 13) KNI 1101 KNI 1101	 Lab
0201	Rob Wells Tu 3:00pm - 4:50pm Th 3:00pm - 4:50pm	Seats (Total: 14) KNI 1101 KNI 1101	 Lab

JOUR476 **Researching Emerging Media in Journalism: Past, Present and Future**

(Perm req)

Prerequisite: Must have completed a university statistics course.

Students will examine developments billed as innovative in the current technology-laden news ecology -- such as social media, mobile reporting and virtual reality -- and the blurring of lines between hard news, informed opinion and advocacy. While questions about the future cannot be answered with any certainty, an exploration of the past allows us to see what happened when new technologies, information systems and practices appeared as possible tools for use by journalists and the communities they served. Students will learn to use resources for researching emerging media, including UMD library databases and open access sources. The course will include presentations by the instructor, discussions, field trips, in-class exercises and student presentations. Each student will engage in a research project to understand the experience of emerging media in a decade between 1820 and 1980. Students will also write an essay contemplating current trends and the future of emerging media.

0101	Ira Chinoy MW 9:30am - 10:45am	Seats (Total: 18) KNI 1101

JOUR479L **Special Topics in Data Gathering and Analysis; The Art of Interviewing**

(Perm req)

Special research topics for reporting and writing.

Restriction: Students are not eligible to take this course if they have completed JOUR328X/JOUR628X. This course will substantially deepen your skills at the most elemental act in journalism knowing how to ask questions that elicit more honest and illuminating answers. You'll learn by doing, watching, and listening-- looking at some of the best interviews ever -- and some of the not so best --and analyze the differences. Students will conduct various interviews of their own, watch and critique themselves and their fellow students, and hear from some of the most skilled interviewers in the field today.

0101	Thomas Rosenstiel W 10:00am - 12:45pm	Seats (Total: 16) KNI 3202

JOUR603 **News Videography**

(Perm req)

Prerequisite: JOUR501 or JOUR502; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR347. Credit only granted for: JOUR503 or JOUR603. Formerly: JOUR503.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 2) TWS 0222B
0401	Alanna Kopania MW 2:00pm - 3:50pm	Seats (Total: 2) TWS 0222B
0601	Alanna Kopania MW 4:00pm - 5:50pm	Seats (Total: 1) TWS 0222B

JOUR620 **Public Affairs Reporting**

Prerequisite: JOUR501 or JOUR502; or permission of JOUR-Philip Merrill College of Journalism.

Designed to add to and sharpen the skills learned in JOUR501 or JOUR502. It is primarily an introduction to "beat" reporting that allows students to sample the most common new beats while reporting and writing on deadline. Students are required to develop and hone their multimedia skills by reporting in a variety of media.

0201	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 1) KNI 1101

JOUR625 **Advanced Capital News Service Bureau**

(Perm req)

Prerequisite: JOUR620; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR625 or JOUR729. Formerly: JOUR729.

Advanced journalism training. Students report as part of College's Capital News Service program.

Washington, D.C. Bureau students register for section 0101. Annapolis Bureau students register for section 0201.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Christianne Parsons Contact instructor or department for details.	Seats (Total: 10)

JOUR627 **Urban Affairs Reporting**

(Perm req)

Prerequisite: JOUR501; and permission of JOUR-Philip Merrill College of Journalism. Corequisite: JOUR620; or permission of JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR327. Credit only granted for: JOUR327 or JOUR627.

Students are immersed in coverage of issues affecting cities, working on a semester-long multi-platform reporting project based in Baltimore.

0101	Rob Wells	Seats (Total: 2)
	M 1:45pm - 4:30pm	KNI 1210

JOUR628C **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations I**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

0101	Kathy Best	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628D **Specialized Topics in News Writing and Reporting; Journalism Compass: Navigating Your College Path**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR502 or permission of instructor Students will learn how to maximize your time in college so you can get a position in journalism (internship or job) that interests you. Information will include expectations and opportunities that are out there, and how to make the most of resumes and cover letters, classes, networking and professionalism and more.

0101	Karen Denny	Seats (Total: 2)
	Meets March 14, 2024 - May 9, 2024	
	M 11:30am - 1:35pm	KNI 3202

JOUR628G **Specialized Topics in News Writing and Reporting; Enterprise Sports Reporting**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Students will work as a team on a sports enterprise project. Previous topics have included gender equity in sports, youth sports & the media, betting and college sports, the economic impact of a new stadium on a city, and the future of football.

0101	Mark Hyman W 12:30pm - 3:15pm	Seats (Total: 4) KNI 2103

JOUR628I **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations II**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

0101	Kathy Best Contact instructor or department for details.	Seats (Total: 5)

JOUR628K **Specialized Topics in News Writing and Reporting; Business and Economic Reporting**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Students will explore why economic and business themes are among the top stories generating reader interest. Topics vary each semester but can focus on the economic impact of immigration, employment, income inequality, wage stagnation, trade wars and affordable housing. Students will learn to identify newsworthy stories and interpret and integrate numbers and financial data into stories in a compelling way.

0101	Constance Ford M 2:00pm - 4:45pm	Seats (Total: 1) KNI 1101

JOUR628O **Specialized Topics in News Writing and Reporting; News Application Development**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR772 or permission of instructor (dpwillis@umd.edu). A class that combines a survey of work in this area, featuring work done at organizations like ProPublica, the Associated Press, the San Francisco Chronicle and others, with practical skills in reporting and building news applications. Students will review and critique existing news apps, read materials from those who built them and develop projects in small groups that display data in a news app style. Key skills gained include: backend development, frontend development, command-line usage and some data analysis.

0101	Derek Willis MW 3:00pm - 4:50pm	Seats (Total: 9) KNI 2107

JOUR628T **Specialized Topics in News Writing and Reporting; Data Visualization**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR652. This course is focused on data visualization in the service of journalistic storytelling. Students will learn data visualization theory, best practices and methods, including how to create data visualizations using a variety of tools.

0101	Adam Marton	Seats (Total: 5)
	W 12:00pm - 2:45pm	KNI 2105

JOUR628V **Specialized Topics in News Writing and Reporting; Covering Comic Book Culture in Entertainment**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR501. Comic book culture's evolving impact in entertainment has been vast and rapidly growing. This course will look at the humble beginnings of comic book culture in entertainment, from the comic books themselves, to the adaptations that have become big business for movies, television, streaming and animation as well as how to write on/cover those moments.

0101	David Betancourt	Seats (Total: 1)
	Tu 6:00pm - 8:45pm	KNI 3200

JOUR628Z **Specialized Topics in News Writing and Reporting; Making a Career as a Freelance Journalist**

(Perm req)

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR502. Freelancing can give early-career journalists their first big break in the industry. This course will cover the basics of launching a career as a freelance reporter: pitching, setting rates, forming relationships with editors, managing invoices and doing your taxes.

0101	chelsea Cirruzzo	Seats (Total: 2)
	Meets January 24, 2024 - March 9, 2024	
	M 5:00pm - 7:05pm	KNI 2103

JOUR634 **Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR660; or permission of Philip Merrill School of Journalism Associate Dean. Jointly offered with: JOUR334. Formerly: JOUR668L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. The class will produce a complete newscast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond	Seats (Total: 5)
	Tu 5:30pm - 8:15pm	KNI 1101

JOUR635 **Advanced Public Affairs Reporting: Investigative Journalism**

(Perm req)

Prerequisite: JOUR620 or comparable experience. Restriction: Permission of College of Journalism. Credit only granted for: JOUR698I or JOUR635. Formerly: JOUR698I.

Students will learn the essentials of accountability reporting while producing a publishable, in-depth project on an issue with national significance and impact on people's lives. Substantial fieldwork, teamwork and persistence are required.

0101	Deborah Nelson	Seats (Total: 8)
	Contact instructor or department for details.	

JOUR636 **Studio Production**

(Perm req)

Prerequisite: JOUR603. Credit only granted for: JOUR636, JOUR336, JOUR668L or JOUR368L. Formerly: JOUR668L.

Moves through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio and teleprompter. Labs focus on executing a live newscast production. Students will also be able to go on live shots with reporters to run camera/lighting.

0101	Nathaniel Stevens	Seats (Total: 2)
	TuTh 4:00pm - 6:00pm	TWS 0116

JOUR652 **Interactive Design and Development**

(Perm req)

Prerequisite: Master of Journalism students must have taken or be concurrently enrolled in JOUR620; or must have permission of the Philip Merrill College of Journalism. Recommended: Multimedia Journalism certificate students are encouraged to take or be concurrently enrolled in JOUR604. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR652 or JOUR352.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools and JavaScript libraries to create charts, timelines and maps to tell stories.

0101	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 2) KNI 1101

JOUR655 **Advanced Online News Bureau**

(Perm req)

Prerequisite: JOUR603 or JOUR620; and JOUR652; or permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as online reporters, editors and producers for a news site. Students also package copy from the print and broadcast news bureaus.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 4)
0201	Stacey Decker Contact instructor or department for details.	Seats (Total: 4)
0301	Sean Mussenden Contact instructor or department for details.	Seats (Total: 3)

JOUR657 **Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Corequisite: JOUR620; or permission of the department. Credit only granted for: JOUR657, JOUR668D or JOUR368D. Formerly: JOUR668D.

Provides students with an overview of social media best practices for journalists, and will work to develop their skills in social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves or contribute to the management of a news organization's social media presence.

PCJ1	Krishna Sharma Sa 8:30am - 12:15pm Class time/details on ELMs *Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 15) KNI 2105 ONLINE

JOUR660 **Broadcast News Writing**

(Perm req)

Prerequisite: JOUR501 or JOUR502; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR660 or JOUR760. Formerly: JOUR760.

Descriptive and critical analysis of broadcast news; methods of evaluation of news judgments; decision-making and organizational aspects of the broadcast news industry.

0301	Alison Burns	Seats (Total: 1)	
	TuTh 10:00am - 11:50am	KNI 2105	

JOUR661 **Television Reporting and Production**

(Perm req)

Prerequisite: JOUR603 and JOUR660. Restriction: Must not be in Journalism Studies (Doctoral) program.

Reporting, writing, editing and production of broadcast news.

0101	Joshua Davidsburg	Seats (Total: 12)	
	TuTh 10:00am - 11:50am	TWS 0222A	

JOUR662 **Broadcast News Producing**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in JOUR661; and (JOUR603 and JOUR660). Jointly offered with: JOUR362. Credit only granted for: JOUR362, JOUR668B, or JOUR662. Formerly: JOUR668B.

Learn and practice the basics of broadcast newscast producing. Design, write, edit and implement a news program.

0101	Cindy Wright	Seats (Total: 2)	
	Tu 6:30pm - 8:00pm	TWS 0117	
	Tu 2:00pm - 6:30pm	TWS 0117	Lab

JOUR664 **Advanced Audio and Podcast Reporting**

(Perm req)

Prerequisite: JOUR634; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR364.

Students receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing broadcast-quality radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast, including news spots, finished pieces, two-ways and a long-form audio segment. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 4) KNI 3210

JOUR667 **Broadcast News Bureau**

(Perm req)

Prerequisite: JOUR661. Jointly offered with: JOUR367, JOUR357.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Melvin Coffee Contact instructor or department for details.	Seats (Total: 6)

JOUR668A **Topics in Broadcasting and Electronic Media; Sports Reporting: Broadcast and Storytelling**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603, JOUR620 and JOUR660. This class will focus on the art of storytelling for television. Students will get practical, hands-on experience in presentation, learning how to master interviewing skills as well as reporting and anchoring with a heavy focus on the details of writing for broadcast. Students will work creatively and collaboratively to understand how to take a story from an idea to an on-air finished product.

0101	Robert Carlin MW 4:00pm - 5:50pm	Seats (Total: 3) TWS 0222A

JOUR668K **Topics in Broadcasting and Electronic Media; Video Lab**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603. Recommended: JOUR661, JOUR668I or JOUR668X. This course focuses on the future of video journalism, from documentary to 360 videos. In the class, students can experiment with cinematic techniques, motion graphics, choose-your-own-adventure style videos and more. The class is heavily influenced by independent documentary filmmaking and video storytelling. Students will be required to contribute to a weekly behind-the-scenes vlog of our class documenting the work we do.

0101	Joshua Davidsburg Tu 2:00pm - 4:45pm	Seats (Total: 4) TWS 0222A

JOUR668N **Topics in Broadcasting and Electronic Media; Advanced Photojournalism**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR670. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay over time, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen W 4:00pm - 6:45pm	Seats (Total: 2) KNI 2105

JOUR668O **Topics in Broadcasting and Electronic Media; Advanced Studio Production**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR636 or permission of instructor. This course will take you through every production aspect related to studio production and work as production support for live sports or video game news shows. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. It will also include post-production promo pieces for live shows, as well as social media components that are production-related.

0101	Nathaniel Stevens W 4:00pm - 6:45pm	Seats (Total: 1) TWS 0116

JOUR668U **Topics in Broadcasting and Electronic Media; Virtual Production Using Unreal Engine**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR668L or permission of instructor. This course will explore the various uses of the Unreal Engine, provide students with hands-on experience with the software, and take students through the process of creating a virtual environment. It will feature gaming and video concepts that are relevant to the production and video game industries.

0101	Nathaniel Stevens W 12:30pm - 3:15pm	Seats (Total: 2) TWS 0116

JOUR668Y **Topics in Broadcasting and Electronic Media; Sports Producing**

(Perm req)

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603 and JOUR660. This class will take an analytical look at sports TV and sports content by deconstructing shows. We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" effectively and the importance of identifying and telling good stories. We will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2 and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 1) KNI 2103

JOUR670 **Photojournalism**

(Perm req)

Prerequisite: JOUR620. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism; and permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR370. Credit only granted for: JOUR368P, JOUR370 or JOUR670. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0301	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 1) KNI 1101

JOUR682 **Sports Reporting and Writing**

(Perm req)

Prerequisite: JOUR620. Jointly offered with: JOUR382. Credit only granted for: JOUR628B, JOUR682 or JOUR382. Formerly: JOUR628B.

Gives students wide-ranging instruction in all aspects of sports reporting and writing, from the history of the craft to its mechanics, including how to report, write, edit and lay out sports stories, incorporating multimedia and interactive elements. Ethics, objectivity, fairness and the future of sports journalism will be discussed.

0101	Kevin Blackistone M 10:00am - 11:15am W 10:00am - 11:15am	Seats (Total: 7) KNI 3202 KNI 2105

JOUR689I **News Coverage of Specialized Topics; Investigative Reporting**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Introduces students to the skills and techniques of investigative reporting. Students will learn how to report, write and publish investigative stories.

0101	James Risen M 2:00pm - 4:45pm	Seats (Total: 3) KNI 2103

JOUR689L **News Coverage of Specialized Topics; Local News Investigation**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR620. Students in this class will learn and put into practice classic investigative news techniques, including using data to find local officials and other people to interview; uncovering a network of confidential sources; approaching and interviewing confidential sources; gaining trust in order to gain hard truths; cultivating public officials as confidential and on-the-record sources; finding supporting documents and other public and non-public records. This is not a data class. The class emphasis is on finding, preparing for, and interviewing people with sensitive information. The subject of the investigation is still confidential.

0101	Dana Priest M 9:45am - 12:30pm	Seats (Total: 2) KNI 3200

JOUR689W **News Coverage of Specialized Topics; News Alchemy: Journalism and Artificial Intelligence**

(Perm req)

Advance training and practice in writing and reporting news in on specialized field of interest.

Prerequisite: JOUR502 or permission of instructor. Students will explore and evaluate systems of Artificial Intelligence, learning how to use (and not use) them for journalism tasks. They will debate the ethical implications of bringing AI into news processes and experiment with building AI into everyday reporting.

0101	Derek Willis TuTh 9:00am - 10:50am	Seats (Total: 3) KNI 2107

JOUR698 **Special Problems in Communication**

(Perm req)

Independent study in area of the student's interest.

Contact department for information to register for this course.

JOUR702 **Journalism Law and Ethics**

(Perm req)

Restriction: Must be in one of the following programs (Journalism - Master (Master's); Journalism Studies (Doctoral)) ; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR400, JOUR 600, JOUR700, or JOUR 702.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0201	Megan Fromm Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 1) ONLINE KNI 3202	

JOUR757 **History of Investigative Journalism**

Credit only granted for: JOUR757, JOUR779I, JOUR459I, or JOUR457. Formerly: JOUR779I.

Teaches the history of investigative journalism in the U.S., focusing on key time periods from colonial times to the present.

0101	Mark Feldstein Tu 2:00pm - 4:45pm	Seats (Total: 5) KNI 2109	

JOUR772 **Data Journalism**

(Perm req)

Prerequisite: Must have completed JOUR502, or students who have taken courses with comparable content may contact the department. Jointly offered with: JOUR472. Credit only granted for: JOUR772 or JOUR472.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

0101	Daniel Trielli Paiva Da Silva Tu 12:00pm - 1:50pm Th 12:00pm - 1:50pm	Seats (Total: 5) KNI 1101 KNI 1101	 Lab
0201	Rob Wells Tu 3:00pm - 4:50pm Th 3:00pm - 4:50pm	Seats (Total: 4) KNI 1101 KNI 1101	 Lab

JOUR775 **Quantitative Methods in Journalism and Public Communication Research**

Credit only granted for: JOUR701 or JOUR775. Formerly: JOUR701.

Logic and methods of quantitative data collection and statistical analysis as applied to journalism and public communication studies.

0101	Ronald Yaros	Seats (Total: 6)
	Th 12:30pm - 3:15pm	KNI 2105

JOUR776 **Qualitative Research Methods in Journalism and Public Communication**

Credit only granted for: JOUR711 or JOUR776. Formerly: JOUR711.

Methods of historical, critical and field research in journalism and public communication. Formulation of significant research questions, systematic collection of bibliographic and phenomenal information, formulating substantial claims, organizing and writing research for disciplinary outlets.

0101	Linda Steiner	Seats (Total: 7)
	W 9:00am - 11:45am	KNI 1109

JOUR798 **Master's Professional Fieldwork**

(Perm req)

Research for and preparation of news articles or programs for use in the media. Analysis of fieldwork experience using communication theory and research results. Fieldwork may be done independently or as an internship. Repeatable to a maximum of six credits.

Contact department for information to register for this course.

JOUR799 **Master's Thesis Research**
Contact department for information to register for this course.

JOUR801 **Advanced Public Communication Theory**

(Perm req)

Prerequisite: JOUR601, or students who have taken courses with comparable content may contact the department.

Advanced selected survey of communication & media theory.

0101	Susan Moeller	Seats (Total: 8)
	Tu 9:00am - 11:45am	KNI 2109

JOUR888 **Doctoral Professional Field Work**

Critical analysis of a phase of a professional field in journalism and public communication. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

JOUR889 **Doctoral Tutorial in Journalism and Public Communication**

Individual research in journalism and public communication.

Contact department for information to register for this course.

JOUR898 **Pre-Candidacy Research**

Contact department for information to register for this course.

JOUR899 **Doctoral Dissertation Research in Journalism and Mass Communication**

(Perm req)

Contact department for information to register for this course.

JWST Jewish Studies Spring 2024

JWST219C **Special Topics in Jewish Studies; Contemporary Israel**
Contact department for information to register for this course.

JWST219D **Special Topics in Jewish Studies; Women in Israel**
Contact department for information to register for this course.

JWST219E **Special Topics in Jewish Studies; Writing Israel**
Contact department for information to register for this course.

JWST225 **Religions of the Ancient Near East**

Cross-listed with: RELS225, HIST219I. Credit only granted for: JWST225, HIST219I, RELS225, or RELS219A. Formerly: RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

0101	Matthew Suriano	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	HBK 0105

JWST231 **Jewish Texts and Cultures of the Second Temple Period**

Cross-listed with: HIST291. Credit only granted for: HIST291 or JWST231.

An introduction to the literature, history, and culture of Jews in the period between the sixth century BCE and the second century CE. Special topics may include the rise of the formation of the biblical canon, scriptural interpretation, sectarian and revolutionary movements, and growth of the diaspora.

0101	Hayim Lapin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 2109

JWST233 **Why the Jews? Historical and Cultural Investigations**

Restriction: Must not have completed HIST282, HIST283, JWST234, or JWST235. Cross-listed with HIST287. Credit only granted for: JWST233 or HIST287.

Examines the history and culture of the Jews from the thirteenth century BCE/BC to the present through an examination of significant themes or problems (such as "religion" or "diaspora") that shape our understanding of the Jewish people. A primary focus in the course will be on texts, artifacts, and other cultural products by Jews and others that illustrate the history of the Jews help understand their cultural heritage.

0101	Hayim Lapin	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	HBK 0105

JWST262 **Introduction to the Hebrew Bible/Old Testament**

Cross-listed with: ENGL262, HEBR298B. Credit only granted for: JWST262, HEBR298B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

Contact department for information to register for this course.

JWST281 **Yiddish I**

Cross-listed with: GERS141. Credit only granted for: JWST281, GERM148Y or GERS141.

Introduction to the Yiddish language, with emphasis on speaking, reading, and writing skills. Students will also learn the history of the language, its significance to Jewish culture, its origins and basic structure.

0101	Adi Mahalel	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 3122

JWST319A **Special Topics in Jewish Studies; Jews and Sports: Identities, Nationalisms, and Masculinities**

Topics in Jewish Studies.

Cross-listed with HIST329Q. Credit only granted for JWST319A or HIST329Q. Modern Jewish culture is marked by competing visions of Jewish masculinity, from the traditional learned scholar to the muscle Jew of the 19th century. Athleticism plays an important role in this cultural formation. Attention to Jewish engagement in and with sports including boxing, baseball, basketball, and soccer allows for a better understanding of modern Jewish identity and its development and challenges.

0101	Daniel Richter	Seats (Total: 35)
	M 3:30pm - 6:00pm	JMZ 2206

JWST319B **Special Topics in Jewish Studies; Arab-Israeli Relations**

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319E **Special Topics in Jewish Studies; Literature of the Shoah**

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319P **Arts & Humanities in Social Innovation, Change, and Justice: Do Good Now**

Cross-listed with: ARHU380. Credit only granted for: ARHU380, BSOS388B, JWST319P, or PLCY388D.

The course serves as the core course for the Arts-and-Humanities track in PLCY's minor in "Nonprofit Leadership and Social Innovation." Students will be introduced to the role that the Arts and Humanities can play in social innovation and social change, while exploring various mechanisms for achieving impact with a focus on advancing social justice, equity and systems change. This course deepens understandings of nonprofit leadership, entrepreneurship and social innovation by guiding students through the creation and implementation of social change projects and ventures of their choice.

Cross-listed with ARHU380. For Spring 2022: Credit granted only for JWST319P, ARHU380, BSOS388B, or PLCY388D. The course serves as the core course for the Arts-and-Humanities track in PLCY's minor in "Nonprofit Leadership and Social Innovation." Students will be introduced to the role that the Arts and Humanities can play in social innovation and social change, while exploring various mechanisms for achieving impact with a focus on advancing social justice, equity and systems change. This course deepens understandings of nonprofit leadership, entrepreneurship and social innovation by guiding students through the creation and implementation of social change projects and ventures of their choice.

0101	Lauren Kotkin	Seats (Total: 18)
	W 6:00pm - 8:30pm	KEY 0100

JWST319T **Special Topics in Jewish Studies; American Jewish Comedy: From the Marx Brothers to "The Marvelous Mrs. Maisel"**

Topics in Jewish Studies.

Cross-listed with CINE329I. Credit only granted for CINE329I or JWST319T. Since the turn of the 20th century, from the films of the Marx Brothers to current tv series, internet shows, and stand-up comics, comedy has served to express Jewish Americanness, and at the same time has defined much of American cultural life in a broad sense. This course will explore comedy as an expression of both American Jewish identity and American culture writ large, across several media: literature, television, film, the internet, graphic literature, stand-up, and theater.

0101	Eric Zakim	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ESJ B0322

JWST319W **Special Topics in Jewish Studies; Israeli Slang**

Topics in Jewish Studies.

Cross-listed with HEBR398W and ISRL349W. Credit only granted for HEBR398W, ISRL349W, or JWST319W. Examination of the history, linguistics, politics and sociology of Modern Israeli Hebrew slang, including influences from popular American culture, technology, the military, Arabic and immigrant group languages. Taught in English; course materials in Hebrew with translation.

0101	Avital Karpman	Seats (Total: 35)
	Class time/details on ELMs	ONLINE

JWST324 **Biblical History and Culture**

Cross-listed with: HIST321. Credit only granted for: HIST321, or JWST324.

Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

0101	Matthew Suriano	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ARC 1103

JWST331 **Early Christianity: Jesus to Constantine**

Cross-listed with: HIST320. Credit only granted for: HIST320 or JWST331.

Social and religious history of early Christianity from its origin in the first century to the reign of Constantine.

Cross-listed with HIST320. Credit granted for JWST331 or HIST320.

0101	Elizabeth Conner	Seats (Total: 40)
	MW 2:00pm - 3:15pm	SQH 1119

JWST341 **American Jewish Literature**

Cross-listed with ENGL331. Credit only granted for: ENGL331 or JWST341.

An exploration of the role played by literature in the development of American Jewish ethnic identity. Primary materials include essays, poetry, plays, short stories, novels, films and music.

0101	Adi Mahalel	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	SQH 1101

JWST345 **The Holocaust of European Jewry**

Cross-listed with: HIST307. Credit only granted for: HIST307 or JWST345.

Roots of Nazi Jewish policy in the 1930's and during World War II: the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

Contact department for information to register for this course.

JWST369J **Special Topics in Study Abroad III; Contemprary Jewish Thought**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

JWST386 **Experiential Learning in Jewish Studies**

Prerequisite: Permission of ARHU-Meyerhoff Program & Center for Jewish Studies. Restriction: Junior standing or higher.

The Jewish Studies Program's internship program. Pre-professional experience in research, analysis, and writing related to Jewish Studies in a variety of work settings.

0101	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

JWST408 **Honors Seminar in Jewish Studies**

(Perm req)

An in-depth exploration of a theme in Jewish history, literature, culture or thought. Course subject and readings will vary from year to year, but will generally cut across periods, locations, or disciplines. Students are expected to engage the course material critically and to use the seminar as an opportunity to develop an independent research agenda.

Contact department for information to register for this course.

JWST409 **Research Seminar in Jewish Studies**

(Perm req)

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Contact department for information to register for this course.

JWST409G **Research Seminar in Jewish Studies; Jewish Women in Modernity**

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Exploration of the role of Jewish women in the process of Jewish modernization and the impact of modernization on Jewish women in Europe and America in the nineteenth and twentieth centuries.

0101	Marsha Rozenblit	Seats (Total: 6)
	Th 2:00pm - 4:30pm	TLF 2101

JWST418 **Honors Thesis Research in Jewish Studies**

(Perm req)

Guided research on a thesis under the supervision of the Jewish Studies faculty.

Contact department for information to register for this course.

JWST419G **Special Topics in Jewish Studies; Gilgamesh**

0101	Matthew Suriano	Seats (Total: 5)
	Contact instructor or department for details.	

JWST459 **Readings in Medieval Hebrew**

(Perm req)

Readings and analysis of Hebrew texts and literature from the Middle Ages. Language of instruction in English; all texts in Hebrew.

Contact department for information to register for this course.

JWST468 **Readings in the Hebrew Bible**

(Perm req)

Readings in the Hebrew text of the Bible. Emphasis in close reading, grammar analysis, and modern interpretations of the Bible. Language of instruction English; all texts in Hebrew.

Contact department for information to register for this course.

JWST469 **Readings in Rabbinic Hebrew**

(Perm req)

Readings in classical rabbinic texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts in original language.

Knowedge of Hebrw and/or permission of Instructor. Readings in Classical Rabbinic Texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts

Contact department for information to register for this course.

JWST478 **Readings in Modern Hebrew**

(Perm req)

Variable topics in Modern Hebrew Literature.

Contact department for information to register for this course.

JWST499 **Independent Study in Jewish Studies; Independent Study in Jewish Studies**

(Perm req)

Prerequisite: permission of department.

Contact department for information to register for this course.

JWST499B **Independent Study in Jewish Studies; Advanced Archaeology of Jerusalem**

0101	Matthew Suriano	Seats (Total: 5)
	Contact instructor or department for details.	

JWST609 **Supervised Instruction-Practicum in Jewish Studies**

(Perm req)

Supervised instruction or supervised practicum in Jewish Studies. Intended for graduate students whose course work includes field work or classroom teaching.

Contact department for information to register for this course.

JWST619 **Directed Readings in Jewish Studies**

(Perm req)

Independent Study in Jewish Studies. Readings and papers.

Contact department for information to register for this course.

JWST648 **Readings in Jewish History**

(Perm req)

Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Contact department for information to register for this course.

JWST658 **Readings in Jewish Thought and Culture**

(Perm req)

Examines key issues in the development of Jewish thought and culture.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines key issues in the development of Jewish thought and culture.

Contact department for information to register for this course.

JWST678 **Readings in Jewish Literature**

(Perm req)

Examines selected themes or literatures in the development of Jewish literary traditions.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines selected themes on literatures in the development of Jewish literary traditions.

Contact department for information to register for this course.

JWST699 **Independent Graduate Readings in Jewish Studies**

Independent readings or guided research in a field of Jewish Studies with a member of the Jewish Studies graduate faculty.

Contact department for information to register for this course.

JWST799 **Masters Thesis Research**

(Perm req)

Research and Writing the Masters Thesis in Jewish Studies.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES Kinesiology Spring 2024

KNES120A **Fitness Walking**

Credit only granted for: KNES120 or KNES120A. Formerly: KNES120A.

This is a co-ed physical activity course for beginning fitness walking.

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee. Restricted to students in KNES major.

0101	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0102	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab

KNES131N **Physical Education Activities: Coed; Jogging (beginning)**

Attendance is required on the first day of class. Students must pay a $40 instructional materials fee. Restricted to students in KNES major. Credit only granted for KNES131V or KNES131N.

0101	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
0102	Andrew Ginsberg	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab

KNES140R **Physical Education Activities: Coed; Trampoline (Beginning)**

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0101	Joshua Montfort	Seats (Total: 24)	
	Meets January 24, 2024 - March 13, 2024		
	MW 10:00am - 11:50am	SPH 1120	Lab

KNES140V **Physical Education Activities: Coed; Tumbling and Balancing (Beginning)**

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0201	Joshua Montfort	Seats (Total: 25)	
	Meets March 25, 2024 - May 9, 2024		
	MW 10:00am - 11:50am	SPH 1120	Lab

KNES144Q **Physical Education Activities: Coed; Martial Arts, Karate (Beginning)**

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Kenneth Klotz MW 10:00am - 11:50am	Seats (Total: 35) SPH 0107	Lab

KNES144R **Physical Education Activities: Coed; Martial Arts, Karate (Intermediate)**

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee

0101	Michael Dorothy TuTh 9:00am - 10:50am	Seats (Total: 35) SPH 0107	

KNES144T **Physical Education Activities: Coed; Self-Defense**

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Kenneth Klotz MW 8:00am - 9:50am	Seats (Total: 35) SPH 0107	Lab
0102	Kenneth Klotz WF 12:00pm - 1:50pm	Seats (Total: 35) SPH 0107	Lab

KNES151 **Professional Lifeguard Training**

Recommended: Intermediate swimming skills, confidence in deep water. Credit only granted for: KNES151 or KNES154W. Formerly: KNES154W. Additional information: Students may obtain a lifeguard certificate/credential by passing a separate exam and skills test from the certifying organization. This is optional, and not required to earn course credit in the KNES151 course.

Lifeguarding will prepare students to respond to emergencies, promote safety in aquatic environments, and may even appeal to a future employer looking for a proven leader. Throughout the course, students will work towards American Red Cross certification requirements, including lifeguarding, CPR/AED, and First Aid. This class will also place an emphasis on professionalism, communication, teamwork, problem solving, and emergency response.

0201	Natalie Taylor, John Felts **Meets March 14, 2024 - May 9, 2024** MW 9:00am - 10:50am	Seats (Total: 22) ERC B0120	Lab

KNES154N **Physical Education Activities: Coed; Swimming (Beginning)**

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee.

0101	Ashley David **Meets January 24, 2024 - March 13, 2024** TuTh 8:00am - 9:50am	Seats (Total: 22) ERC B0120	Lab

KNES156 **Pickleball**

This is a co-ed physical activity course for pickleball.

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0101	Andrea Liberto	Seats (Total: 24)	
	Meets January 24, 2024 - March 13, 2024		
	TuTh 2:00pm - 3:50pm	SPH 2101	
0201	Andrea Liberto	Seats (Total: 24)	
	Meets March 14, 2024 - May 9, 2024		
	TuTh 2:00pm - 3:50pm	SPH 2101	

KNES161T **Physical Education Activities: Coed; Yoga**

Attendance on the first day of class is mandatory. Students must pay a $40.00 instructional materials fee. Restricted to students in KNES major.

0101	Kate Shin	Seats (Total: 30)	
	Meets January 24, 2024 - March 13, 2024		
	TuTh 11:00am - 12:50pm	SPH 0107	Lab
0201	Kate Shin	Seats (Total: 30)	
	Meets March 25, 2024 - May 9, 2024		
	TuTh 11:00am - 12:50pm	SPH 0107	Lab

KNES180 **Volleyball**

Credit only granted for: KNES180 or KNES160N. Formerly: KNES160N.

This is a co-ed physical activity course for volleyball.

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0101	Kai Wu	Seats (Total: 24)
	Meets January 24, 2024 - March 13, 2024	
	MW 2:00pm - 3:50pm	SPH 2101
0201	Kai Wu	Seats (Total: 24)
	Meets March 14, 2024 - May 9, 2024	
	MW 12:00pm - 1:50pm	SPH 2101

KNES182 **Soccer**

Credit only granted for: KNES182 or KNES152N. Formerly: KNES152N.

This is a co-ed physical activity course for soccer.

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0101	Emma Powell **Meets January 24, 2024 - March 13, 2024** MW 12:00pm - 1:50pm	Seats (Total: 24) SPH 2101
0201	Emma Powell **Meets March 14, 2024 - May 9, 2024** MW 2:00pm - 3:50pm	Seats (Total: 24) SPH 2101

KNES186 Basketball

Restriction: Must be in a major within the SPHL-Kinesiology department.

This is a co-ed physical activity course for basketball.

Attendance is required on the first day of class. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file. Credit only granted for KNES186 or KNES100N

0101	Ronald Mower **Meets January 24, 2024 - March 13, 2024** MW 1:00pm - 2:50pm	Seats (Total: 24) ARM 1122
0201	Ronald Mower **Meets March 14, 2024 - May 9, 2024** MW 1:00pm - 2:50pm	Seats (Total: 24) ARM 1122

KNES190 Flag Football

Restriction: Must be in a major within the SPHL-Kinesiology department.

This is a co-ed physical activity course for flag football.

Attendance on the first day of class is mandatory. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0201	Sarah Glancy, Ross Miller **Meets March 14, 2024 - May 9, 2024** TuTh 2:00pm - 3:50pm	Seats (Total: 24) SPH 2101

KNES192 Ultimate Frisbee

Restriction: Must be in a major within the SPHL-Kinesiology department.

This is a co-ed physical activity course for Ultimate Frisbee.

attendance on the first day of class is mandatory. Students must pay a $40.00 instructional materials fee. Restricted to KNES majors only. Non-majors may join a hold file.

0101	Emilio Weber **Meets January 24, 2024 - March 13, 2024** TuTh 2:00pm - 3:50pm	Seats (Total: 24) SPH 2101	
0201	Emilio Weber **Meets March 14, 2024 - May 9, 2024** TuTh 12:00pm - 1:50pm	Seats (Total: 24) SPH 2101	

KNES200 **Introduction to Kinesiology**

Restriction: Must be a Kinesiology major within first 2 semesters; or must not be in Kinesiology program and have less than 45 credits. Credit only granted for: KNES200 or KNES201.

Kinesiology is the interdisciplinary study of physical activity that includes seven sub-disciplines: 1) exercise physiology; 2) biomechanics; 3) sport psychology; 4) motor development; 5) motor control; 6) sport history; and 7) sport sociology. This course will examine these areas of study within Kinesiology from scientific and applied perspectives.

0101	Andrea Liberto Class time/details on ELMs Tu 12:30pm - 1:45pm	Seats (Total: 30) ONLINE SPH 1302	Discussion
0103	Andrea Liberto Class time/details on ELMs Th 12:30pm - 1:45pm	Seats (Total: 30) ONLINE SPH 1302	Discussion
0105	Andrea Liberto Class time/details on ELMs Tu 9:30am - 10:45am *Restricted to winter orientation students.*	Seats (Total: 30) ONLINE SPH 1302	Discussion
0106	Andrea Liberto Class time/details on ELMs Th 9:30am - 10:45am	Seats (Total: 30) ONLINE SPH 1302	Discussion

KNES214 **Science and Methods of Personal Fitness Instruction**

Credit only granted for: KNES214 or KNES210 and KNES211, or KNES210 and KNES212, or KNES289N. Formerly: KNES210/KNES211, KNES210/KNES212, and KNES289N.

Basic concepts of human anatomy, exercise physiology, applied kinesiology, nutrition and the physiology of exercise training. Includes the CORE knowledge required for the American Council on Exercise (ACE) Personal Trainer certification.

0101	Rosemary Lindle Class time/details on ELMs M 9:00am - 10:50am	Seats (Total: 24) ONLINE SPH 0103	 Lab
0102	Rosemary Lindle Class time/details on ELMs W 9:00am - 10:50am	Seats (Total: 24) ONLINE SPH 0103	 Lab

KNES225 **Hoop Dreams: Black Masculinity and Sport**

Credit only granted for: KNES289R OR KNES225. Formerly: KNES289R.

Has sport disadvantaged African American males? This course critically examines sport as a site where notions of black masculinity are publicly debated, critiqued, challenged, celebrated, and also transformed. Utilizing an interdisciplinary approach, this course explores how sport has been invoked across the political and ideological spectrum to interrogate a number of issues impacting the life chances of young, African Americans males including educational attainment, poverty, social mobility, racism, cultural production, and notions of masculinity.

0101	Ronald Mower MW 4:00pm - 5:15pm	Seats (Total: 50) SPH 1303	

KNES246 **Transformational Leader in Sport: The Art and Science of Coaching**

Highlights the expectations and ethical problems facing developmental sport programs and youth athletic coaches today. Explores the continuum of coaching from Buttermaker (Bad News Bears) to Belichick (New England Patriots). We first examine the issues of sports, physical inactivity and obesity from a physiological, psychological, social, political, and economic perspective. Next, we will focus on how transformational leadership behaviors, knowledge, and communication influence changes in intrapersonal, interpersonal, and environmental aspects. Finally, we will employ a practical, manageable method for coaches to develop their athletes and programs.

0101	Jay Goldstein M 10:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 20) SPH 1302 SPH 2101	 Discussion
0102	Jay Goldstein M 10:00am - 11:50am W 11:00am - 11:50am	Seats (Total: 20) SPH 1302 SPH 2101	 Discussion

KNES260 **Science of Physical Activity and Cardiovascular Health**

Course details (1) the public health importance of and the processes underlying cardiovascular disease, (2) the risk factors for cardiovascular disease and the methods whereby they were identified, and (3) the principles of the scientific evidence supporting the use of physical activity to prevent cardiovascular disease.

0101	James Hagberg MW 3:00pm - 3:50pm Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 16) SPH 0302 ONLINE SPH 0125	 Discussion
0102	James Hagberg MW 3:00pm - 3:50pm Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 16) SPH 0302 ONLINE SPH 0125	 Discussion

KNES282 **Basic Care and Prevention of Athletic Injuries**

Restriction: Must be in a major within the SPHL-Kinesiology department.

Theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. Topics include: physical conditioning, preventive taping, recognition of injuries, first aid and CPR.

0101	Joanne Klossner TuTh 2:00pm - 3:15pm	Seats (Total: 36) SPH 0308	

KNES285 **History of Physical Culture, Sport, & Science in America**

Restriction: Restricted to majors or non-majors with less than or equal to 60 credits. Credit only granted for: KNES285 or KNES293.

Examines the history of physical culture in America, focusing on the period from the end of the Civil War to the Cold War. Physical culture refers to a broad range of movement practices including sport, play, rehabilitative exercise, health and fitness training, and recreation and leisure. More specifically, we challenge the idea that historical physical culture practices--and the scientific processes from which they were derived--were 'neutral' or 'objective'; rather, we explore the cultural, social, political, and economic contexts shaping physical culture knowledge, study, structures, and policies across American history. The goal is for you to learn and apply techniques of historical analysis to develop a critical understanding of how knowledge about, and practices of, physical culture supported a particular social order via the construction of difference, norms, and/or hierarchies, and ultimately contributed to some of the inequalities that endure today.

0101	Michael Friedman MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion

0102	Michael Friedman MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion
0103	Michael Friedman MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion
0104	Michael Friedman MW 10:00am - 10:50am W 3:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion
0105	Michael Friedman MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion
0106	Michael Friedman MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion
0107	Michael Friedman MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion
0108	Michael Friedman MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 SPH 0303	 Discussion

KNES287 **Sport and American Society**

Recommended: Minimum grade of C- in KNES285.

Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	Ronald Mower MW 11:00am - 11:50am M 8:00am - 8:50am	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion

0102	Ronald Mower MW 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0103	Ronald Mower MW 11:00am - 11:50am M 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0104	Ronald Mower MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0105	Ronald Mower MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion
0106	Ronald Mower MW 11:00am - 11:50am M 3:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0305	 Discussion

KNES289 **Topical Investigations**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES289M **Topical Investigations; KNES Physical Activity Program**

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

KNES293 **History of Sport in America**

The growth and development of sport in America. The transformation of sport within the perspective of American history, including class sport, professionalization, amateurism, and international involvement.

Contact department for information to register for this course.

KNES300 **Biomechanics of Human Motion**

Prerequisite: Minimum grade of C- in BSCI201; and minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Students must pay a $75.00 lab fee.

0101	Ross Miller MW 3:00pm - 4:15pm Tu 8:00am - 9:50am	Seats (Total: 12) LEF 2205 SPH 0223	 Lab
0102	Ross Miller MW 3:00pm - 4:15pm Tu 10:00am - 11:50am	Seats (Total: 12) LEF 2205 SPH 0223	 Lab
0103	Ross Miller MW 3:00pm - 4:15pm Tu 12:00pm - 1:50pm	Seats (Total: 12) LEF 2205 SPH 0223	 Lab
0104	Ross Miller MW 3:00pm - 4:15pm Tu 2:00pm - 3:50pm	Seats (Total: 12) LEF 2205 SPH 0223	 Lab
0107	Ross Miller MW 3:00pm - 4:15pm Th 12:00pm - 1:50pm	Seats (Total: 12) LEF 2205 SPH 0223	 Lab
0108	Ross Miller MW 3:00pm - 4:15pm Th 2:00pm - 3:50pm	Seats (Total: 12) LEF 2205 SPH 0223	 Lab

KNES300H **Biomechanics of Human Motion**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201; and minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75.00 lab fee.

0101	Ross Miller MW 3:00pm - 4:15pm Contact instructor or department for details.	Seats (Total: 3) LEF 2205

KNES305 **Principles & Application of Exercise Rehabilitation**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

0101	Larry Plotkin TuTh 8:00am - 9:15am	Seats (Total: 28) SPH 0308

KNES305H **Principles & Application of Exercise Rehabilitation**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Larry Plotkin TuTh 8:00am - 9:15am	Seats (Total: 3) SPH 0308

KNES306 **Prosthetics for Limb Amputations**

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES300. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES306 or KNES498W. Formerly: KNES498W.

Introduction to the science of prosthetics and the artificial devices that are designed, developed and fit to replace the missing body part or parts lost through trauma, disease or congenital conditions.

0101	Michelle Jamin W 5:00pm - 7:30pm	Seats (Total: 28) SPH 0308

KNES306H **Prosthetics for Limb Amputations**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES300. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES306 or KNES498W. Formerly: KNES498W.

Introduction to the science of prosthetics and the artificial devices that are designed, developed and fit to replace the missing body part or parts lost through trauma, disease or congenital conditions.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Michelle Jamin W 5:00pm - 7:30pm	Seats (Total: 2) SPH 0308	

KNES320 Physiological Basis of Physical Activity and Human Health

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202. Restriction: Must be in Public Health Science program. Credit only granted for: KNES360 or KNES320.

A study of the responses and chronic adaptations to physical activity and exercise, with particular emphasis on the interaction between human health and physical activity. The laboratory component of course will focus on the assessment of physical activity and measurement of physiological adaptations to exercise. Students are expected to gain an understanding and appreciation for the benefits of physical activity and exercise in the context of public health.

Students must pay a $75 lab fee.

0101	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs M 12:00pm - 1:50pm	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	 Lab
	Restricted to Public Health Science students at College Park.		
0102	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs M 2:00pm - 3:50pm	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	 Lab
	Restricted to Public Health Science students at College Park.		
0103	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 8:00am - 9:50am	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	 Lab
	Restricted to Public Health Science students at College Park.		

0104	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 10:00am - 11:50am *Restricted to Public Health Science students at College Park.*	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	Lab
0105	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 12:00pm - 1:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	Lab
0106	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs W 2:00pm - 3:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	Lab
0107	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs F 10:00am - 11:50am *Restricted to Public Health Science students at College Park.*	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	Lab
0108	Jeffrey Beans Th 4:00pm - 5:15pm Class time/details on ELMs F 12:00pm - 1:50pm *Restricted to Public Health Science students at College Park.*	Seats (Total: 20) SPH 1312 ONLINE SPH 0125	Lab

KNES332 **Exercise Testing & Prescription for Fitness Professionals**

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman WF 8:00am - 9:50am	Seats (Total: 24) SPH 0302	

KNES332H **Exercise Testing & Prescription for Fitness Professionals**

(Perm req)

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Jo Zimmerman	Seats (Total: 2)
	WF 8:00am - 9:50am	SPH 0302

KNES334 **Adapted Physical Activity: Empowering People with Disabilities to Lead a Healthy and Active Lifestyle**

Prerequisite: KNES370; or students not in the Kinesiology major may contact the instructor for permission. Restriction: Must have earned a minimum of 105 credits.

Study of the field of adapted physical activity and its impact on the health and wellness of individuals with disabilities. Students will design an adapted physical activity program proposal and develop the skills needed to empower people with disabilities to participate in physical activity and sports programs. Students will explore their own perceptions towards disability and how people with disabilities are portrayed in our society. They will study the etiology of disabling conditions and the implications for participating in physical activity.

Restricted to KNES majors only.

0101	Ana Palla	Seats (Total: 30)
	Meets January 24, 2024 - March 13, 2024	
	Class time/details on ELMs	ONLINE

KNES350 **The Psychology of Sports & Exercise**

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

0101	Elizabeth Brown	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	SPH 1312
0102	Elizabeth Brown	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	SPH 1312

0103	J Carson Smith TuTh 9:30am - 10:45am	Seats (Total: 40) SPH 1312
0104	J Carson Smith TuTh 9:30am - 10:45am	Seats (Total: 30) SPH 1312

KNES350H **The Psychology of Sports & Exercise**

(Perm req)

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Prerequisite: permission of department. Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 2) SPH 1312
0102	J Carson Smith TuTh 9:30am - 10:45am	Seats (Total: 3) SPH 1312

KNES352 **Global Perspectives of Physical Activity**

Prerequisite: Minimum grade of C- in SPHL100 and any KNES Core course. Restriction: Must be in a major in SPHL-School of Public Health.

This course introduces global perspectives of physical activity to students within the School of Public Health who are studying abroad. Students will be able to creatively explore the physical activity culture in their host city by engaging in a variety of assignments, including a group podcast and data uploads. Additionally, students will demonstrate overall knowledge gained from the course by writing a case study report that focuses on how they are physically active abroad versus at home, tying in key concepts of public and global health.

SA02	Emma Powell Contact instructor or department for details.	Seats (Total: 0)

KNES355 **Sport Management**

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 27) SPH 0307	

KNES355H **Sport Management**

(Perm req)

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 3) SPH 0307	

KNES360 **Physiology of Exercise**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $75.00 lab fee.

0101	Steven Prior MWF 12:00pm - 12:50pm Tu 8:00am - 9:50am	Seats (Total: 12) SPH 1312 SPH 0125	 Lab
0102	Steven Prior MWF 12:00pm - 12:50pm Tu 10:00am - 11:50am	Seats (Total: 12) SPH 1312 SPH 0125	 Lab
0103	Steven Prior MWF 12:00pm - 12:50pm Tu 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0125	 Lab
0104	Steven Prior MWF 12:00pm - 12:50pm Tu 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0125	 Lab

0106	Steven Prior MWF 12:00pm - 12:50pm Th 10:00am - 11:50am	Seats (Total: 12) SPH 1312 SPH 0125	 Lab
0107	Steven Prior MWF 12:00pm - 12:50pm Th 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0125	 Lab
0108	Steven Prior MWF 12:00pm - 12:50pm Th 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0125	 Lab

KNES360H **Physiology of Exercise**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75.00 lab fee.

0101	Steven Prior MWF 12:00pm - 12:50pm Contact instructor or department for details. *Restricted to students in the Kinesiology major (code: 08351).*	Seats (Total: 3) SPH 1312	

KNES370 **Motor Development**

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

0101	Tim Kiemel MW 3:00pm - 3:50pm M 8:00am - 8:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0102	Tim Kiemel MW 3:00pm - 3:50pm M 9:00am - 9:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion

0103	Tim Kiemel MW 3:00pm - 3:50pm M 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0104	Tim Kiemel MW 3:00pm - 3:50pm M 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0107	Tim Kiemel MW 3:00pm - 3:50pm W 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion
0108	Tim Kiemel MW 3:00pm - 3:50pm W 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0223	 Discussion

KNES370H **Motor Development**

(Perm req)

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

Prerequisite: permission of department. Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Tim Kiemel MW 3:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 2) SPH 1312	

KNES385 **Motor Control and Learning**

Prerequisite: Minimum grade of C- in BSCI201, and a minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

Students must pay a $75 lab fee.

0101	Rodolphe Gentili TuTh 11:00am - 12:15pm M 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Discussion
0102	Rodolphe Gentili TuTh 11:00am - 12:15pm M 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Discussion
0103	Rodolphe Gentili TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Discussion
0104	Rodolphe Gentili TuTh 11:00am - 12:15pm W 2:00pm - 3:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Discussion
0106	Rodolphe Gentili TuTh 11:00am - 12:15pm F 10:00am - 11:50am	Seats (Total: 12) SPH 1312 SPH 0223	 Discussion
0107	Rodolphe Gentili TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 12) SPH 1312 SPH 0223	 Discussion

KNES385H **Motor Control and Learning**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201, and a minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

Prerequisite: permission of department. Restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Rodolphe Gentili	Seats (Total: 4)	
	TuTh 11:00am - 12:15pm Contact instructor or department for details.	SPH 1312	

KNES389 **Topical Investigations**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department. This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES389K **Topical Investigations; Kinesiology Internship**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department.

Contact department for information to register for this course.

KNES389Y **Topical Investigations; Applications of community sports-based youth development**

(Perm req)

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Class will meet from 11am-1pm on 7 SUNDAYS 2/11, 2/25, 3/10, 3/24, 4/14, 4/28, 5/12 In this hands-on team-based course, students will volunteer with a local community partner that promotes sports-based positive youth development (SBPYD). These community partners support populations that are traditionally underserved or marginalized and integrate strategies into the sport context to promote positive social outcomes. This course may have non standard meeting times and could require traveling off campus. For additional information and permission to enroll, please contact the Kinesiology department.

0101	Emma Powell	Seats (Total: 25)	
	Class time/details on ELMs Su 11:00am - 1:00pm	ONLINE SPH 2101	Discussion

KNES405 **Principles & Techniques of Manual Muscle Testing**

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Larry Plotkin, Joanne Klossner	Seats (Total: 26)
	Tu 9:30am - 10:45am	SPH 0121
	Th 9:30am - 10:45am	SPH 0121

KNES405H **Principles & Techniques of Manual Muscle Testing**

(Perm req)

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits. Additional information: This course emphasizes hands-on application of skills. Course participation is critical.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Larry Plotkin, Joanne Klossner	Seats (Total: 2)
	Tu 9:30am - 10:45am	SPH 0121
	Th 9:30am - 10:45am	SPH 0121

KNES442 **Psychology of Exercise and Health**

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES442 or KNES498O. Formerly: KNES498O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 26) SPH 0307

KNES442H **Psychology of Exercise and Health**

(Perm req)

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES442 or KNES498O. Formerly: KNES498O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

Prerequisite: permission of department. Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 2) SPH 0307

KNES451 **Children and Sport: A Psychosocial Perspective**

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

0101	Elizabeth Brown Tu 4:00pm - 6:30pm	Seats (Total: 30) SPH 0308

KNES451H **Children and Sport: A Psychosocial Perspective**

(Perm req)

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 105 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

Prerequisite: permission of department. Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Elizabeth Brown Tu 4:00pm - 6:30pm	Seats (Total: 3) SPH 0308

KNES457 **Managing Youth Programs: Educational, Fitness and Sport**

Prerequisite: Minimum grade of C- in KNES350 and KNES370. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES457 or KNES498Y.

An examination of the basic functions involved in managing physical education, fitness, and youth sports programs. Focus on leadership skills, organizational management, and techniques for applying learned skills in a variety of organizational settings that serve the nation's youth.

0101	Jay Goldstein	Seats (Total: 30)
	TuTh 9:30am - 10:45am	SPH 0302

KNES464 **Exercise Metabolism: Role in Health and Disease**

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

0101	Sarah Glancy	Seats (Total: 26)
	TuTh 9:30am - 10:45am	SPH 0307

KNES464H **Exercise Metabolism: Role in Health and Disease**

(Perm req)

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Sarah Glancy	Seats (Total: 3)
	TuTh 9:30am - 10:45am	SPH 0307

KNES465 **Physical Activity and Disease Prevention and Treatment**

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

0101	Sushant Ranadive TuTh 11:00am - 12:15pm	Seats (Total: 24) SPH 0307

KNES465H **Physical Activity and Disease Prevention and Treatment**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Sushant Ranadive TuTh 11:00am - 12:15pm	Seats (Total: 4) SPH 0307

KNES471 **Assistive Technologies for Restoration of Human Motor Functions**

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES385; and a minimum grade of C- in MATH113 or higher. Recommended: KNES265 or PHYS121. Basic knowledge of MS Excel or Matlab. Restriction: Must have earned a minimum of 75 credits and must be in a major within SPHL-Kinesiology department.

Through a combination of neuroscience and neural engineering this interdisciplinary course focuses on the fundamental principles underlying the interactions between the human cognitive-motor control/learning systems and rehabilitative technologies that aim to offer clinical solutions to individuals with motor impairments.

0101	Rodolphe Gentili TuTh 2:00pm - 3:15pm	Seats (Total: 30) SPH 0302

KNES477 **Honors Thesis**

(Perm req)

Prerequisite: KNES476. Corequisite: KNES478. Restriction: Must be a KNES Honors student; and senior standing. Credit only granted for: KNES399 or KNES477.

Advisement will be on the individual basis. Thesis must be defended in the honors seminar.

0101	Tim Kiemel F 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 16) SPH 0301 ONLINE

KNES478 **Honors Seminar; Honors Seminar**

(Perm req)

Guided discussion of research topics of current interest.

0101	Tim Kiemel	Seats (Total: 16)
	F 11:00am - 11:50am	SPH 0301
	Class time/details on ELMs	ONLINE

KNES483 **Sport Marketing and Media**

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

0101	Stephen McDaniel	Seats (Total: 28)
	TuTh 3:30pm - 4:45pm	SPH 0307

KNES483H **Sport Marketing and Media**

(Perm req)

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

Prerequisite: permission of department. Restricted to students who have been admitted in the Kinesiology Honors program.

0101	Stephen McDaniel	Seats (Total: 2)
	TuTh 3:30pm - 4:45pm	SPH 0307

KNES484 **Sporting Hollywood**

Prerequisite: Minimum grade of C- in KNES285 and KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Popular representations of sport within the film media related to wider social discourses on bodies and the politics of various categories of subjectivity (gender, sex, race, class and nationality).

0101	Michael Friedman	Seats (Total: 30)
	MW 3:30pm - 4:45pm	SPH 0308

KNES485 **Sport and Globalization**

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of sport culture from a global perspective; focuses on theorizing the similarities and differences between various national sporting cultures.

0101	David Andrews	Seats (Total: 30)
	W 10:00am - 10:50am Class time/details on ELMs	ONLINE ONLINE

KNES498 **Special Topics in Kinesiology**

(Perm req)

Topics of special interest in areas not covered by regularly scheduled courses.

This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES498D **Special Topics in Kinesiology; Type 2 Diabetes & Physical Activity Seminar**

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisite: KNES360 with a C- or better. Restriction: Must have completed a minimum of 90 credits. Students will examine and critically analyze the recent research literature relevant to the diagnosis, prevalence, and impact of the current diabetes epidemic in the US. Students will also study the current state of knowledge relative to the use of physical activity to prevent and treat diabetes. This seminar format class is totally based on student presentations, student participation, and student writing assignments.

0101	James Hagberg	Seats (Total: 20)
	Tu 8:00am - 10:30am	SPH 0305

KNES498K **Special Topics in Kinesiology; Evidence-Based Practices in Athletic Health Care**

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisite: Must have completed at least 1 course from the 300-level Kinesiology Core courses with a grade of C- or better. Recommended: Completion of KNES282 with grade of C- or better. In this discussion-style, team-based course kinesiology, public health, and other students are provided with the opportunity to pair with a given sport organization (community partner) in order to assess the health and safety needs of the partner as well as plan, develop, implement and evaluate appropriate evidence-based intervention strategies. Students will work on course projects individually and in teams and ultimately our class will create a comprehensive intervention toolkit, including sport health and safety policies, guidelines, and other resources for the organization's stakeholders. While class time will be allotted for course-related work, meetings with the community partner and/or class peers outside of regular class time is also required.

0101	Joanne Klossner	Seats (Total: 20)
	MW 4:00pm - 5:15pm	SPH 0305

KNES498V **Special Topics in Kinesiology; Clinical Biomechanics: Musculoskeletal Injury**

Topics of special interest in areas not covered by regularly scheduled courses.

Prerequisite: Minimum grade of C- in KNES300. Restriction: Must have earned a minimum of 75 credits. This course will explore the mechanical bases of musculoskeletal injury to better understand the biomechanical mechanisms involved in causing the injury, the effect of injury on musculoskeletal tissue, and ultimately, based on our current knowledge, how injuries might be prevented.

0101	Jae Kun Shim	Seats (Total: 26)
	Class time/details on ELMs	ONLINE

KNES602 **Physical Activity Program Planning and Evaluation**

(Perm req)

Recommended: KNES600.

An in-depth analysis of the planning, implementation, and evaluation of physical activity interventions and programs intended to achieve physical activity and public health goals.

PLK1	Brit Saksvig	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
	Must be in Physical Activity, Online (MPH). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

KNES609 **Research Issues in Kinesiology**

(Perm req)

Issues, methodologies, and critical analyses of current research in Kinesiology.

Contact department for information to register for this course.

KNES610 **Methods and Techniques of Research**

Studies methods and techniques of research used in Kinesiology; an analysis of examples of their use; and practice in their application to problems of interest to the student.

0101	Seppo Iso-Ahola	Seats (Total: 15)
	W 4:00pm - 6:30pm	SPH 2334

KNES618 **Current Readings in Exercise and Applied Physiology**

Student-led presentations of contemporary literature in the areas of genetics, exercise science, fitness and health. Emphasis on papers describing new research findings, novel techniques, innovative methods, and emerging issues.

0101	Sushant Ranadive M 2:00pm - 2:50pm	Seats (Total: 15) SPH 2334

KNES658 **Teaching Internship in Physical Education**

(Perm req)

The MCERT PE internship is an intense experience that immerses interns into the life of their assigned Secondary school. The internship experience is designed to provide our pre-service teachers with a rich opportunity to learn the craft of teaching through close observation of experts as well as practice in the planning, delivery and assessment of instruction.

CE01	Cara Grant Tu 4:30pm - 6:30pm Class time/details on ELMs	Seats (Total: 20) ONLINE ONLINE

KNES662 **Psychology of Exercise and Health**

Prerequisite: KNES350; or students who have taken courses with comparable content may contact the department. Credit only granted for: KNES662 or KNES689O. Formerly: KNES689O.

Examines the antecedents and consequences of exerciese behavior. Explores motivation, attitude, control, socialization. Proposes intervention strategies at the individual, organizational and societal levels.

0101	Seppo Iso-Ahola M 4:00pm - 6:30pm	Seats (Total: 4) SPH 0307

KNES678 **Professional Seminar for Teacher Development in Physical Education**

(Perm req)

The spring seminar course is an extension of the fall seminar course and spring internship course. It accompanies a full time undergraduate level teaching internship and is intended to support and extend students' field experience learning. The spring seminar course is designed to continue to provide students with the support they need to successfully meet the College of Education's Middle School Mathematics and Science programmatic requirements and the Maryland State Department of Education's Middle School Mathematics and Science Teacher Certification Requirements. These requirements include demonstrating mastery on all of the College of Education's Foundational Competencies (FCCs) and Performance Based Assessments (PBAs) and the national edTPA, InTASC, and AMLE Standards.

IH60	Cara Grant M 4:00pm - 6:30pm	Seats (Total: 20) ONLINE

KNES689 **Special Problems in Kinesiology**

(Perm req)

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

KNES689F **Special Problems in Kinesiology; Psychobiological Foundations of Skilled Motor Performance**

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

This course examines the psychological aspects of motor skill learning and performance from a cognitive neuroscience perspective. The focus of the course is on the brain processes underlying superior psychomotor performance and their disruption by mental distress. The basic question addressed in the course is, "What makes a great performer tick?"

0101	Bradley Hatfield M 4:00pm - 6:30pm	Seats (Total: 15) SPH 2334

KNES692 **Cardiovascular Aspects of Exercise Physiology**

Prerequisite: KNES360.

A comprehensive consideration of the various cardiovascular factors affecting human physical performance. Emphasis on the regulation of cardiovascular functions during physical activity. Energy liberation and transfer, circulation, respiration, temperature regulation, physiology of work at altitudes, aerobic endurance training, and exercise, health and aging.

0101	Sushant Ranadive W 4:00pm - 6:30pm	Seats (Total: 15) SPH 0125

KNES711 **Professional Development and Grantsmanship**

Restriction: Must be a Doctoral student; and must be in a major in SPHL-School of Public Health. Credit only granted for: KNES711 or KNES789X. Formerly: KNES789X.

Enhance continued professional development through an exploration of culture, climate, expectations and mentoring in research I universities. Generate a grant application including the hypothesis, structure, specific aims, background and significance, and submission of a total grant. Grant process and product will be emphasized.

0101	James Hagberg W 4:00pm - 6:30pm	Seats (Total: 15) SPH 0301

KNES778 **Practical Experience in Physical Activity and Public Health**

The practical experience is a time-limited, supervised period of public/community health activities carried out in a health or allied health organization involved with physical activity. Students gain practical experience in areas such as program planning and implementation, program evaluation, public policy analysis, research, and management.

0101	Shannon Jette	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

KNES786 **Capstone Project in Physical Activity and Public Health**

Prerequisite: KNES600, KNES601, and KNES602.

The culminating experience in which the student applies knowledge and skills learned in the MPH program to conduct independent work on a physical activity problem under the supervision of a faculty advisor.

0101	Shannon Jette	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

KNES789 **Advanced Projects in Kinesiology**

(Perm req)

Advanced projects examining current problems and trends in kinesiology.

Contact department for information to register for this course.

KNES789B **Advanced Projects in Kinesiology; Advanced Biomechanics**

Advanced projects examining current problems and trends in kinesiology.

0101	Jae Kun Shim	Seats (Total: 15)
	Tu 4:00pm - 6:30pm	SPH 0223

KNES789R **Advanced Projects in Kinesiology; Brain Dynamics and EEG: Applications to Cognitive-motor Performance**

Advanced projects examining current problems and trends in kinesiology.

Recommended: NACS641 (Introduction to Neuroscience) and any signal processing course (e.g., KNES689D Special Problems in Kinesiology: Physiological Signal Processing). This course covers the theory and practice of electroencephalography, which includes, but not limited to, the basic principles of EEG (synaptic sources, volume conduction, electrodes, recording techniques, etc.), various EEG rhythms that reflect cognitive processing, signal processing, conventional analytic methods such as event-related potentials and spectral analysis as well as computational approaches like source localization and functional connectivity. This course may provide coverage of other electrography such as electrooculography (EOG) electromyography (EMG), and electrocardiography (ECG or EKG).

0101	Hyuk Oh	Seats (Total: 15)
	TuTh 4:00pm - 5:15pm	SPH 0301

KNES799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

KNES898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

KNES899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

KORA Korean Spring 2024

KORA102 **Elementary Korean II**

Prerequisite: KORA101; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must be a non-Heritage student; and permission of instructor required for new students.

Continued training in elementary spoken and written Korean.

0101	Seong Minne Koh MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 3203
0201	Seong Minne Koh MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3203

KORA202 **Intermediate Korean II**

Prerequisite: KORA201; or permission of instructor.

The second stage of an intermediate-level course designed for non-Heritage students. It continues the second year of instruction in the University's two track Korean Program.

0101	Seong Minne Koh MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 2125
0201	Seong Minne Koh MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 3203

KORA398P **Special Topics in Korean Studies; Discourse in Everyday Life in Korea: Shaping Culture, Ideology, and Identity**

(Perm req)

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Penn State University, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 10)
	Meets January 8, 2024 - April 22, 2024	
	TuTh 12:05pm - 1:20pm	ONLINE

KORA398Q **Special Topics in Korean Studies; Introduction to East Asian History: Korea**

(Perm req)

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Wisconsin, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 10)
	Meets January 23, 2024 - May 3, 2024	
	Tu 2:00pm - 3:15pm	ONLINE
	Class time/details on ELMs	ONLINE

KORA499 **Independent Study Korean**

(Perm req)

Independent study under faculty supervision.

Contact department for information to register for this course.

LACS Latin American and Caribbean Studies Spring 2024

LACS235 **Issues in Latin American and Caribbean Studies II**

Cross-listed with: PORT235, SPAN235. Credit only granted for: LASC235, PORT235, SPAN235, or LACS235. Formerly: LASC235.

Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. Taught in English.

0101	Juan Diaz	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	LEF 1201

LACS251 **Latin America Since Independence**

Cross-listed with: HIST251. Credit only granted for: HIST251, LASC251, or LACS251. Formerly: HIST251 or LASC251.

Introductory survey of the history of Latin America from the era of independence (c. 1810-1825) through the early 1980s. Major themes include independence and sovereignty, postcolonialism and neocolonialism, nation- and state-building, liberalism, citizenship, economic development and modernization, social organization and stratification, race and ethnicity, gender relations, identity politics, reform and revolution, authoritarianism and democratization, and inter-American relations.

0101	Karin Rosemblatt	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0103

LACS348B **Special Topics in Latin American and Caribbean Studies; Graphic Novels: Discussing Latin America**

Topics to be announced when offered.

0101	Barbara Zocal Da Silva	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 1124

LACS348E **Caribbean Literature in English**

Cross-listed with: ENGL362. Credit only granted for: ENGL362, LASC348E, or LACS348E.

Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

Cross-listed with ENGL362. Credit granted for ENGL362 or LASC348E.

Contact department for information to register for this course.

LACS448W **Special Topics in Latin American and Caribbean Studies; Doing Business in Nicaragua: Microfinance and Social Value Creation**

Intensive study of a selected topic related to Latin American and Caribbean Studies.

Contact department for information to register for this course.

LACS486 **Internship in Latin American/Caribbean Studies**

(Perm req)

Prerequisite: Student must have completed at least two LACS courses, one of which must be a required/core course (LACS/SPAN234, LACS/SPAN235, LACS/HIST250, or LACS/HIST251); and permission of Latin American Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Credit only granted for: LASC486 OR LACS486. Formerly: LASC486. Additional information: The course is primarily intended for students seeking the Certificate in Latin American and Caribbean Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director, and students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LACS Certificate. Students submit a final written report of their experience, including critical analysis of the institutional relevance to their major field of study and to Latin American and Caribbean Studies. Students will also be asked to give an oral presentation.

Contact department for information to register for this course.

LACS609 **Colloquium in Latin American and Caribbean Studies; Colloquium**

The colloquium is one of three core courses for the Graduate Certificate in Latin American and Caribbean Studies. Providing 3 credits over the course of multiple semesters (1-2 credits per semester), it ensures an ongoing intellectual community among students, faculty, and guest scholars. For group discussions, the Colloquium meets four times per semester. Additionally, students attend Latin American and Caribbean activities and events in order to discuss and theorize about the region and its diaspora from informed perspectives. Each semester's colloquium provides 1-2 credits toward the Graduate Certificate.

The colloquium is a core course for the Graduate Certificate in Latin American and Caribbean Studies. It is aimed at ensuring an ongoing intellectual community among students, faculty, and guest scholars. The colloquium only meets four (4) times a semester.

0101	Isabella Alcaniz	Seats (Total: 18)
	F 12:00pm - 1:30pm	HJP 3120
	Contact instructor or department for details.	

LACS688 **Experiential Learning in Latin American and Caribbean Studies**

Offers an opportunity for practical experience of Latin American and Caribbean organizations, to supplement a methodological focus. Credits may be fulfilled with internships, an applied research assistantship, or any program outside the University that focuses on the experiences of Latin America, the Caribbean, and related diasporas. Examples of experiential learning may include internships at organizations such as the Pan American Health Organization, the World Bank, the Washington Office on Latin America (WOLA), or Casa de Maryland.

0101	Isabella Alcaniz	Seats (Total: 3)
	Contact instructor or department for details.	

LACS689 **Research Praxis in Latin American and Caribbean Studies**

(Perm req)

The concentration in research praxis is intended primarily to serve students who are interested in academic research and teaching in Latin American and Caribbean studies by exposing them to a research experience supervised by an affiliate faculty member in Latin American and Caribbean studies. This might be a 3-credit intensive research seminar or independent studies tutorial involving a major research project or a 1-3 credit research assistantship in Latin American and Caribbean studies.

0101	Isabella Alcaniz	Seats (Total: 3)
	Contact instructor or department for details.	

LARC Landscape Architecture Spring 2024

LARC120 **Computer Visualization I**

(Perm req)

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and must be in Landscape Architecture program. Credit only granted for: LARC120 or LARC131. Formerly: LARC120.

Provides the opportunity to 1) explore basic design principles and practice 2) explore and apply computer concepts and principles, 3) learn and apply basic computer tools used in landscape architecture and allied disciplines and 4) demonstrate competency in design vocabulary and computer applications through demonstrated deliverables used in the built environment design fields.

Students must pay a $200.00 Landscape Architecture Fee.

0101	Sherry Russell Tu 2:00pm - 2:50pm Tu 3:00pm - 4:40pm	Seats (Total: 20) PLS 2137 PLS 2137	 Lab
0102	Sherry Russell Th 2:00pm - 2:50pm Th 3:00pm - 4:40pm	Seats (Total: 20) PLS 2137 PLS 2137	 Lab

LARC151 **Urban Agriculture: Designing and Assessing Edible Landscapes**

Students will examine the growing development of urban agriculture and edible landscapes. Urban agriculture has seen a recent growth and interest in cities across the globe. From Paris to New York, from Baltimore to Detroit, urban agriculture is an emerging land use to address a variety of needs. Redevelopment, food deserts, community engagement and environmental justice are just some of the issues and topics that are connected to the recent growth of urban agriculture. This course will take a critical examination of urban agriculture's contribution to the food system, its input and outputs in the urban landscape, and the planning and design of urban agriculture and edible landscapes.

0101	Kelly Fleming M 11:00am - 11:50am Class time/details on ELMs M 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 ONLINE PLS 1164	 Discussion
0102	Kelly Fleming M 11:00am - 11:50am Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 20) PLS 1140 ONLINE PLS 1164	 Discussion

0103	Kelly Fleming M 11:00am - 11:50am Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 20) PLS 1140 ONLINE PLS 1162		Discussion
0104	Kelly Fleming M 11:00am - 11:50am Class time/details on ELMs W 1:00pm - 1:50pm	Seats (Total: 20) PLS 1140 ONLINE PLS 1162		Discussion

LARC152 **Greening Cities: Who Wins, Who Loses, and Who Cares?**

Credit only granted for: LARC152 or PLSC289I. Formerly: PLSC289I.

"Greening Cities" can have many interpretations: improving or adding urban economic activity, realizing energy efficiency, greening urban transport systems, etc. An important component of livable and sustainable cities and metropolitan ecosystems are the plants and landscapes that are inhabited by plants. With the majority of humans now living in cities, a survey of urban ecosystem principles and an examination of design and planning strategies for plant and landscape resources in urban and metropolitan regions is critical.

Contact department for information to register for this course.

LARC160 **Introduction to Landscape Architecture and Environmental Design**

History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences. Topics include urban, ecological, community and creative design.

0101	Deni Ruggeri MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 19) BPS 1243 PLS 1168		Discussion
0102	Deni Ruggeri MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 19) BPS 1243 PLS 1168		Discussion
0103	Deni Ruggeri MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 19) BPS 1243 PLS 1146		Discussion
0104	Deni Ruggeri MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 18) BPS 1243 PLS 1146		Discussion

LARC221 **Digital Design Tools**

(Perm req)

Prerequisite: LARC120 and LARC141. Recommended: LARC240 and LARC265. Restriction: Sophomore standing or higher; and must be in Landscape Architecture program.

The development and application of computing skills as used by the landscape architecture profession. This Computer-Aided Design and Drafting (CADD) course develops computer drafting using a variety of software programs. It also introduces students to Geographic Information Systems (GIS) mapping technologies.

0101	John Wray IV Tu 8:00am - 10:45am Class time/details on ELMs	Seats (Total: 15) PLS 2137 ONLINE	 Lab

LARC240 **Graphic Communication and Design Studio**

(Perm req)

Prerequisite: LARC141 and LARC263. Corequisite: LARC221 and LARC265. Restriction: Sophomore standing or higher; and must be in Landscape Architecture program.

Exploration of graphic presentation techniques and original concept development for landscape architecture planning and design.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Naomi Sachs MW 2:00pm - 2:50pm MW 3:00pm - 4:50pm	Seats (Total: 15) PLS 2152 PLS 2152	 Lab

LARC263 **History of Landscape Architecture**

A survey of landscape architecture history from the ancient Western civilizations to the twentieth century with consideration of parallel developments in the Eastern World, European Africa and the Americas.

0101	Caren Yglesias TuTh 12:30pm - 1:45pm *For LARC majors only.*	Seats (Total: 20) PLS 1111
0102	Caren Yglesias TuTh 12:30pm - 1:45pm	Seats (Total: 10) PLS 1111

LARC321 **Landscape Structures and Materials**

(Perm req)

Prerequisite: LARC320; and LARC340. Restriction: Must be in Landscape Architecture program. Credit only granted for: LARC321 or PLSC321.

An examination of the use, properties, and detailing of materials used in landscape construction. The use and design of structures in the landscape.

0101	David Myers	Seats (Total: 20)	
	TuTh 9:30am - 10:45am Th 11:00am - 12:15pm	PLS 1115 PLS 2150	 Lab

LARC341 **Urban Design Studio**

(Perm req)

Prerequisite: LARC411 and LARC231. Corequisite: LARC412. Restriction: Junior standing or higher; and must be in Landscape Architecture program. Credit only granted for: LARC330 or LARC440. Formerly: LARC440.

The landscape architect's role within the interdisciplinary urban design process, focusing on urban site design issues. Pedestrian friendly site design and the future of sustainable development will be studied.

Students must pay a $300.00 Landscape Architecture Fee.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Christopher Ellis	Seats (Total: 15)	
	MW 1:00pm - 1:50pm MW 2:00pm - 4:50pm	PLS 2150 PLS 2150	 Lab

LARC454 **Principles for Planting Design**

(Perm req)

Prerequisite: PLSC253 or equivalent; and LARC220 or LARC620. Restriction: Permission of Landscape Architecture program; and must be in Landscape Architecture program; or permission of Landscape Architecture program. Credit only granted for: LARC454 or LARC489E. Formerly: LARC489E.

Emphasis will be placed on the analysis of natural systems of the landscape as they relate to visual thinking and to the rigor of the design process. Planting Design will familiarize you with native habitats, reinforce the application of design principles, and assess human response to the built environment in terms of developing a planting scheme. Students will acquire an understanding of and an appreciation for complex, interdependent relationships that exist in a healthy plant community. Students will graphically represent planting plans as communication tools suitable for client and contractor discussion as well as the basic construction documentation process through plant schedules, details, technical specifications, soil analysis, cost estimating, site preparation, and landscape maintenance procedures.

0101	Rachel Jawin	Seats (Total: 10)	
	F 9:00am - 11:50am	PLS 2137	

LARC461 **People and the Environment**

Credit only granted for: LARC489K or LARC461. Formerly: LARC489K.

Focus is placed on human and environmental interactions. Students will look at both natural and built environments and how they influence human health and well-being. Many environmental settings will be examined. These include hospitals, public housing neighborhoods, school settings, retirement communities, transportation corridors and green spaces. We will also explore how racial and socio-economic factors affect living and working environmental conditions. Ultimately, students will be using this knowledge to create environments that support individuals, families and various community groups' health and well-being.

0101	Byoung-Suk Kweon	Seats (Total: 20)	
	M 9:00am - 10:50am	PLS 1111	
	W 9:00am - 9:50am	PLS 1111	

LARC471 **Capstone Studio: Community Design**

(Perm req)

Prerequisite: LARC430. Restriction: Senior standing; and must be in Landscape Architecture program.

A capstone experience with projects of varied thematic content that emphasize the integration of critical thinking skills and methodologies introduced throughout the landscape architecture curriculum. Students apply design and analysis methodologies, evaluate alternative solutions, involve community residents and engage in final design development, using the master plan and site design process, report writing, and oral and graphic presentations. Final presentations are open to the university and the community.

Occassional field trips throughout the semester. Please see the instructor for details. Students must pay a $300.00 Landscape Architecture Fee.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Kelly Fleming	Seats (Total: 15)	
	MW 1:00pm - 1:50pm	PLS 2148	
	MW 2:00pm - 4:50pm	PLS 2148	Lab

LARC499 **Independent Studies in Landscape Architecture**

(Perm req)

Independent studies in landscape architecture including field, studio or library research under the direction of a faculty member.

Contact department for information to register for this course.

LARC641 **Graduate Studio II**

(Perm req)

Prerequisite: LARC640. Corequisite: LARC720. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Principles and techniques of site analysis, environmental design and site development for human settlements and interaction with natural systems. Will expand analytical skills through complex site design problems. Students will research, observe and apply low impact development and sustainable practices, become familiar with building and landscape types by investigating alternative arrangements on the land, and understand user needs and design for populations with a range of abilities. Will support LEED and sustainable practices and acknowledge the requirements of public health, safety, and welfare.

Students must pay a $300.00 Graduate Studio Fee.

A Partnership for Action Learning in Sustainability (PALS) course where students apply classroom learning to actual community needs.

0101	Byoung-Suk Kweon	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 1142	
	TuTh 2:00pm - 4:50pm	PLS 1142	Lab

LARC648 **Graduate Studio IV**

(Perm req)

An exploration that will focus on issues in landscape planning and design such as campus planning, urban housing and recreation, and neighborhood preservation, restoration and development. Projects will emphasize the value of responsible academic and civic landscapes, the place of historic resources in contemporary life, and innovative solutions for the integration of past and future landscapes.

Students must pay a $300.00 Graduate Studio Fee. An exploration that will focus on issues in landscape planning and design such as campus planning, urban housing and recreation, and neighborhood preservation, restoration and development. Projects will emphasize the value of responsible academic and civic landscapes, the place of historic resources in contemporary life, and innovative solutions for the integration of past and future landscapes.

0101	Jack Sullivan	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2154	
	TuTh 2:00pm - 4:50pm	PLS 2154	Lab

LARC663 **Landscape and Garden History**

(Perm req)

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

History of garden making and its evolution into design practice. Students will become familiar with narratives of garden art and landscape architecture through the study of selected key sites, designers, and visual written sources. A focus on gardens' past and afterlife; the nature of primary sources (both built and written), and how these can be evaluated and used. Primary sources will be drawn from several disciplines and include a wide array of genres: treatises, epistolary exchanges, tax returns, novels, poems, paintings and drawings.

0101	Jack Sullivan	Seats (Total: 12)	
	Tu 9:30am - 10:45am	PLS 1158	
	Tu 11:00am - 12:15pm	PLS 1158	

LARC671 **Landscape Architecture Research Methods**

(Perm req)

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Investigation and discussion of broad scope of research methods and the development of landscape design and planning research techniques and skills. The urban environment will be viewed primarily as a social and psychological environment, with concern for who uses these environments and the conflicts that can arise between user groups.

0101	Naomi Sachs	Seats (Total: 15)	
	W 10:00am - 12:50pm	PLS 1172	

LARC699 **Independent Studies in Landscape and Architecture**

(Perm req)

Individual Instruction course.

Contact department for information to register for this course.

LARC720 **Environmental Analysis and Site Engineering**

(Perm req)

Prerequisite: LARC640; or permission of AGNR-Plant Science & Landscape Architecture department. Corequisite: LARC641.

Techniques for prediction of alterations in social and natural processes brought about by human use of the land; application of such assessments to environmental management; basic methods of landscape alteration, augmentation, and control including grading, drainage, road and trail design, and stormwater management.

0101	Shihua Wang	Seats (Total: 12)	
	Th 8:00am - 9:50am	PLS 1142	
	Th 10:00am - 11:50am	PLS 1142	Lab

LARC799 **Master's Thesis Research**

(Perm req)

Development of a terminal thesis on a problem in landscape architecture, designed to demonstrate comprehensive skills and knowledge achieved in the graduate program. The subject will be selected in consultation with an advisor and periodically reviewed with a committee headed by the advisor.

Students must pay a $300.00 Graduate Studio Fee.

Contact department for information to register for this course.

LATN Latin Spring 2024

LATN102 **Elementary Latin II**

Prerequisite: Must have completed LATN101 at University of Maryland, College Park; or permission of ARHU-Classics department.

0101	Eugenia Lao	Seats (Total: 20)
	M 9:00am - 10:15am	ONLINE
	Class time/details on ELMs	ONLINE

LATN301 **Plautus**

Plautine drama. Literary, linguistic and socio-cultural aspects. Readings are in Latin.

Students will read excerpts from the comedies of Plautus to learn about their language, style, humor, and performance. They will also situate Plautus within the society and culture of Republican Rome and examine his long-lasting influence. Readings are in Latin.

0101	Francisco Barrenechea	Seats (Total: 10)
	MW 3:30pm - 4:45pm	MMH 1218

LATN415 **Vergil's Aeneid**

Formerly: LATN305.

Vergil's Aeneid: readings of selections in Latin and of the entire epic in English translation along with critical essays.

0101	Katherine Wasdin	Seats (Total: 7)
	M 5:00pm - 7:40pm	MMH 1218

LATN488P **Latin Readings; Latin Pedagogy**

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

Prerequisite: LATN201 or its equivalent

0101	Edward Parker	Seats (Total: 7)
	Sa 9:00am - 3:30pm	ONLINE

LATN499 **Independent Study in Latin Language and Literature**

(Perm req)

Contact department for information to register for this course.

LATN605 **Vergil**

A study of Vergil's development as a literary artist and Augustan poet through readings in the Eclogues, Georgics, and Aeneid. Readings are in Latin.

0101	Katherine Wasdin	Seats (Total: 7)
	M 5:00pm - 7:40pm	MMH 1218

LATN640 **Latin Pedagogy**

Learning styles and abilities in the Latin language classroom; textbooks and workbooks for teaching Latin; integrating Roman culture into language study; computer and technological resources for Latin Language instruction; using videos and feature films in Latin and classical civilization classes; the articulation between secondary school and college-level Latin study. Meets in a series of five day-long Saturday workshops and culminates in an outreach program for secondary school Latin students. Recommended for teachers, graduate students and undergraduates planning to teach Latin.

Prerequisite: LATN201 or its equivalent

0101	Edward Parker	Seats (Total: 7)
	Sa 9:00am - 3:30pm	ONLINE

LATN699 **Independent Studies in Latin Literature**

(Perm req)

Contact department for information to register for this course.

LATN799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

LBSC Library Science Spring 2024

LBSC602 **Serving Information Needs**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC602, or both LBSC601 and LBSC650.

An introduction to the skills necessary to interact directly with individuals through the exploration of user behavior theory, strategies to locate and evaluate information from print and electronic resources, and policies and procedures to ensure that all individuals can become information literate.

IM01	Renee Hill	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

IM02	Ana Ndumu M 6:00pm - 8:45pm	Seats (Total: 40) BPS 1238

LBSC611 **History of the Book**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC611 or LBSC078B. Formerly: LBSC708B.

Introduction to the history and development of the book from pre-printing and incunabula to the post-modern book. Book illustration; publishing; collecting.

IM01	Stephen Greenberg M 6:00pm - 8:45pm	Seats (Total: 30) HBK 2119

LBSC631 **Achieving Organizational Excellence**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC631 or LBSC635.

Overview of the principles, practices, and techniques required for effective leadership and management. The innovative strategies, management responsibilities, and skills needed to achieve and sustain high organizational performance in information-based cultural institutions.

IM01	Charles Duquette M 6:00pm - 8:45pm	Seats (Total: 40) HBK 0302H
IM02	James Donaldson Class time/details on ELMs	Seats (Total: 40) ONLINE

LBSC641 **Selecting and Evaluating of Resources for Learning**

Restriction: Permission of INFO-College of Information Studies.

Policies and procedures for collection development, including identifying, evaluating, acquiring, providing, and promoting resources in all formats, to support learning and teaching in elementary and secondary schools.

IM01	Kevin Washburn Class time/details on ELMs	Seats (Total: 29) ONLINE

LBSC646 **Literature and Materials for Young Adults**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC646 or LBSC746. Formerly: LBSC746.

Survey of literature and other materials for older children and adolescents. Criteria for evaluating and using such materials as they relate to the needs, interests, reading abilities, and other capabilities of young readers.

IM01	Kevin Washburn	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC671 **The Lifecycle of Information**

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC671, or LBSC670 and LBSC690.

Introduction to methods used to create, acquire, organize, manage and preserve information. Information systems currently used to support digital and physical libraries, databases, and repositories will be explored.

IM01	Kathy Weaver	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
IM02	Jessica Grimmer	Seats (Total: 40)
	W 6:00pm - 8:45pm	ATL 1114

LBSC707 **Field Study in Information Service**

Prerequisite: LBSC602, LBSC671, and LBSC631; and must have completed an additional 9 credits. Or permission of instructor. Restriction: Must be in Library and Information Science (Master's) program; and permission of INFO-College of Information Studies.

Supervised internship experience in a library, archive, museum, or other information organization.

IM01	Abbie Basile	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

LBSC734 **Seminar in the Academic Library**

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Role of the academic library within the framework of higher education. Planning programs and services, collections, support, fiscal management, physical plant, and cooperation.

IM01	Amber Pierdinock-Weed	Seats (Total: 30)
	Th 4:00pm - 6:45pm	ONLINE

LBSC741 **Seminar in School Library Administration**

Prerequisite: INST650; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Development, management, and evaluation of school library programs at all levels.

IM01	Sheri Massey	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC749 **Internship in School Libraries**

Opportunities to observe and participate in the operation of school libraries at the elementary and secondary levels under the supervision of certified school librarians. Required of all School Library Media certification candidates.

IM01	Bridgette Comanda	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC750 **Research and Teaching Fellowship I**

(Perm req)

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, participate in weekly discussions, observe information literacy instruction sessions, and co-teach at least one research session with another fellow.

Prerequisite: LBSC602

IM01	Benjamin Shaw	Seats (Total: 10)
	Tu 10:00am - 11:00am	MCK 4100A

LBSC752 **Research and Teaching Fellowship III**

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, participate in weekly discussions, and serve as a Discussion Leader for two class periods of LBS750, Research and Teaching Fellowship I. Taken in conjunction with the field study course, either LBSC 703 or LBSC 707.

Prerequisite: LBSC751

IM01	Amber Pierdinock-Weed	Seats (Total: 10)
	Tu 11:00am - 12:00pm	MCK 4100A

LBSC770 **Metadata and Tools for Information Professionals**

Prerequisite: LBSC671; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles, standards, and practices of information representation to facilitate accessing needed information in digital bibliographic environments. Includes exposure to Metadata, XML, RDA/AACR2R, DTDs, MARC, Dublin Core, MODS, ISBN and ISSN, FRBR, FRAD, Classification systems, and Controlled Vocabularies such as LCSH, SEARS, NLM, Getty and ERIC Thesauri, and others.

IM01	Katrina Fenlon Class time/details on ELMs	Seats (Total: 30) ONLINE

LBSC786 **Library and Archives Preservation**

Prerequisite: INST604; and permission of instructor. Restriction: Permission of INFO-College of Information Studies.

An introduction to library and archives materials and media, the risks that affect their preservation and strategies used to enhance preservation of library and archives collections. The course reviews preservation knowledge and skills that archival and library staff uses when providing access, managing, processing and working with collections.

IM01	Beatriz Haspo Tu 6:00pm - 8:45pm	Seats (Total: 20) HBK 2119

LEAD Leadership Education and Development Spring 2024

LEAD217 **Introduction to Leadership**

Restriction: Freshman standing; or sophomore standing. Credit only granted for: LEAD217 or HESI217. Formerly: HESI217.

Surveys the study and practice of leadership and provides students with a variety of experiences to wrestle with large leadership questions. What is leadership? Who can be a leader? How is leadership an important aspect of understanding self and others? Students will explore and respond to these questions through a variety of leadership theories and models, self-assessments, critical reflection, active-learning, group projects, and research. The course will introduce students to critical theory and critical perspectives of leadership to help students broaden their perspectives on leadership and develop more complex thought and practice of leadership.

Students must pay a $32.00 materials fee. Contact leadershipstudies@umd.edu for permission with questions.

0101	Pamela Scott TuTh 2:00pm - 3:15pm	Seats (Total: 25) TLF 0103
0201	Pamela Scott TuTh 12:30pm - 1:45pm	Seats (Total: 25) TLF 0103

0301	Anastasia Lavrenyuk MW 11:00am - 12:15pm	Seats (Total: 25) EDU 3233
0401	Anastasia Lavrenyuk MW 2:00pm - 3:15pm	Seats (Total: 25) ESJ B0322

LEAD321 **Advanced Social Action Seminar**

(Perm req)

Prerequisite: HESI217 or LEAD217; and HESI315 or LEAD315; and HESI320 or LEAD320. Restriction: Must be in the Leadership Studies Minor or Leadership Studies Certificate program. Credit only granted for: HESI321 or LEAD321. Formerly: HESI321. Additional information: May fulfill a requirement for Leadership Studies Certificate only if taken sequentially with LEAD 320 course.

The purpose of the Social Action Sequence (LEAD 320 & LEAD 321) is to examine the connections between leadership and social change, and learn how our own leadership knowledge and practice can be used to advance progress toward more just and equitable communities. Together we will explore socially-responsible approaches to leadership as the groundwork for this sequence. In LEAD 321 (1-credit), students will implement their action plan for regular engagement in their community related to their chosen social issue, practicing leadership approaches and skills to advance social change within their spheres of influence.

Contact leadershipstudies@umd.edu for permission to enroll.

0101	Brittany Devies Class time/details on ELMs	Seats (Total: 10) ONLINE

LEAD417 **Leadership Studies Capstone**

(Perm req)

Prerequisite: HESI217 or LEAD217; and HESI315 or LEAD315. Restriction: Permission of Counseling, Higher Education, and Special Education department required; Restricted to students in Leadership Studies Minor and Certificate only . Credit only granted for: LEAD417 or HESI417. Formerly: HESI417.

As the final academic experience in the Leadership Studies Minor/Certificate, this seminar is designed to be both retrospective and integrative, encouraging you to synthesize relevant concepts and experiences and to formulate your own informed perspective on the implications of leadership. This course will serve as a place to critically think about the field of leadership studies and the implications of leadership in multiple settings for life-long practice. You will be expected to demonstrate skill in analysis of pertinent literature, write with purpose and clarity, facilitate the learning and development of others, and engage in thoughtful group discussion. In this seminar, you will submit scholarly products to demonstrate a mature understanding of your leadership trajectory in past, present and future contexts.

0101	Noel Kuriakos W 2:00pm - 4:45pm	Seats (Total: 25) SQH 1105

LGBT Lesbian Gay Bisexual Transgender Studies — Spring 2024

LGBT200 **Introduction to Lesbian, Gay, Bisexual, and Transgender Studies**

Credit only granted for: LGBT200.

An interdisciplinary study of the historical and social contexts of personal, cultural and political aspects of LGBT life. Sources from a variety of fields, such as anthropology, history, psychology, sociology, and women's studies, focusing on writings by and about LGBT people.

0101	Sayan Bhattacharya MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) SYM 0200 EDU 2102	Discussion
0102	Sayan Bhattacharya MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) SYM 0200 KNI 1105	Discussion
0103	Sayan Bhattacharya MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) SYM 0200 LEF 0135	Discussion
0104	Sayan Bhattacharya MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) SYM 0200 KNI 1206	Discussion

LGBT264 **Quare/Queer Contentions: Exploration of Sexualities in the Black Community**

Cross-listed with: AASP264, WGSS264. Credit only granted for: LGBT264, AASP264, WMST264 or WGSS264.

Centering the subjectivities of queer people of color generally and more specifically, Black people (as the word "quare" invites us to do), Quare/Queer Contentions takes up key moments within the history of the Black community and asks us to consider the work and presence of LGBTQ people in these moments. The course also contends with the everyday experiences of LGBTQ subjects in the Black community. Quare/Queer Contentions, therefore, interrogates the material realities of Black queer people in the context of family, religion, cultural/creative work, among others. Interdisciplinary in orientation, the course will employ primary and secondary texts, film, art, autobiographical narratives and policy data.

0101	Michelle Rowley TuTh 12:30pm - 1:45pm	Seats (Total: 32) SQH 2120	

LGBT265 **LGBTQ+ Literatures and Media**

Restriction: Must not have completed LGBT265. Cross-listed with: ENGL265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0201	Timmy Bridgeman	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	TWS 0234

LGBT386 **Lesbian, Gay, Bisexual, and Transgender Community Organization Internship**

(Perm req)

Prerequisite: 9 credits in LGBT courses. Restriction: Permission of LGBT Studies Program.

Supervised internship experience with a community organization that expressly serves lesbian, gay, bisexual, and transgender people. Students will be expected to relate course material to experience in an analysis of an organization's activities.

Contact department for information to register for this course.

LGBT448Y **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

In-depth study of particular themes and issues in LGBT studies.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listed with ENGL439D and WGSS498Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Martha Nell Smith	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	TWS 1313

LGBT459D **Selected Topics in Sexuality and Literature; Life Writings in Different Media**

Detailed study of sexuality as an aspect of literary and cultural expression.

Repeatable to 9 credits if content differs. Crosslisting with ENGL459C. Credit only granted for ENGL459C or LGBT459D.

0101	John Tobin	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	TWS 1313

LGBT459M **Selected Topics in Sexuality and Literature; American Poetry: Beginning to the Present**

Detailed study of sexuality as an aspect of literary and cultural expression.

Cross-listed with ENGL435. Credit granted for ENGL435 or LGBT459M.

Contact department for information to register for this course.

LGBT488E **Seminar in Lesbian, Gay, Bisexual, and Transgender Studies; Queering Black Femininties**

(Perm req)

Developments in theories and methods of LGBT Studies, with emphasis upon interaction between the humanities and the social sciences in the elaboration of this interdisciplinary area of scholarship.

Students will use cultural studies and arts and humanitie s approaches in order to grapple with the intricacy of black femme identity as a radical critique of sexuality, whiteness, gender and intersecting categories of oppression. The complexity of "femme" is revealed when each of those terms in put into question. Who or what constitutes queer? How does one present feminine; is that merely an aesthetic choice? What constitutes feminine? Does one have to be a womanto be feminine? For black femmes, whose femininity has been circumscribed and defined not only against butchness but also against white femininity, claiming "femme" can be a means to radically critique static categories of gender, race, and sexuality.

0101	Sydney Lewis Tu 3:00pm - 5:30pm	Seats (Total: 15) SQH 4103	

LGBT499 **Independent Study**

(Perm req)

Directed research and analysis in LGBT Studies on a topic selected by the student.

Contact department for information to register for this course.

LING Linguistics Spring 2024

LING200 **Introductory Linguistics**

Credit only granted for: HESP120 or LING200. Additional information: This course serves as the prerequisite for further courses in linguistics.

An exploration of the nature of human language. Introduction to the basic concepts and methodology of modern linguistic analysis (sound systems, word formation, sentence structure). Examination of the factors that contribute to dialect differences and the social implications of language variation. Additional topics may include: semantics, pragmatics, language change, writing systems, typology, language universals, comparison with other communication systems.

0101	Margaret Antonisse MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion
0102	Margaret Antonisse MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion

0103	Margaret Antonisse MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 30) MMH 1400 MMH 1304	 Discussion

LING240 **Language and Mind**

Prerequisite: Minimum grade of C- in LING200. Additional information: Required for Linguistics majors and recommended for students in related fields.

The study of language as a cognitive phenomenon. Ways of representing people's knowledge of their native language, ways in which that knowledge is attained naturally by children, and how it is used in speaking and listening. Additional topics may include: animal communication, language and the brain, language and thought.

0101	Tonia Bleam MWF 10:00am - 10:50am	Seats (Total: 50) TYD 1101

LING248 **Introduction to Laboratory Research in Linguistics**

(Perm req)

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

Prerequisite: Permission of ARHU-Linguistics department.

0101	Jeffrey Lidz F 10:00am - 10:50am Contact instructor or department for details.	Seats (Total: 4) MMH 1108B

LING272 **Biophysics of Language**

Examines the nature of mental representation of language in the physiology of the mind/brain, how it evolved, how it emerges in learners' minds, and how it decays through injury and illness. Insights from linguistics, cognitive psychology, neuroscience, animal behavior, molecular biology, and biophysics are brought to bear on how an abstract systematic behavior can arise within an animal brain.

0101	Juan Uriagereka, Alexander Chabot MW 10:00am - 11:15am	Seats (Total: 30) MMH 1304

LING311 **Syntax I**

Prerequisite: LING240.

Basic concepts, analytical techniques of generative syntax, relation to empirical limits imposed by viewing grammars as representations of a component of human mind. Aspects of current theories.

0101	Tonia Bleam TuTh 11:00am - 12:15pm	Seats (Total: 25) MMH 1304

LING312 **Syntax II**

Prerequisite: LING311.

Continuation of LING311. Development of theories of syntax. Criteria for revising theories. Methods and strategies of scientific efforts to explain natural phenomena.

0101	Aron Hirsch, Omar Agha TuTh 2:00pm - 3:15pm	Seats (Total: 25) MMH 1304

LING321 **Phonology I**

Prerequisite: LING240.

Properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology. Empirical limits imposed by viewing grammars as cognitive representations. Physiological properties and phonological systems; articulatory phonetics and distinctive feature theory.

0101	Naomi Feldman TuTh 9:30am - 10:45am	Seats (Total: 25) SQH 2120

LING322 **Phonology II**

Prerequisite: LING321.

Continuation of LING321. Further investigation of phonological phenomena and phonological theory. Revising and elaborating the theory of the phonological representation; interaction of phonology and morphology.

0101	Kate Mooney MW 2:00pm - 3:15pm	Seats (Total: 20) MMH 1304

LING330 **Historical Linguistics**

Prerequisite: LING321. Recommended: LING311.

A traditional presentation of language change. Language types and families, sounds and writing systems, grammatical categories. Reconstruction of proto-languages by internal and comparative methods.

0101	Margaret Antonisse TuTh 9:30am - 10:45am	Seats (Total: 25) MMH 1304

LING350 **Philosophy of Language**

Prerequisite: LING311; or 2 courses in PHIL and (PHIL170 or PHIL370); or permission of ARHU-Philosophy department. Cross-listed with: PHIL360. Credit only granted for: LING350 or PHIL360.

The nature and function of language and other forms of symbolism from a philosophical perspective.

0101	Alexander Williams TuTh 9:30am - 10:45am	Seats (Total: 30) HBK 0105

LING419M **Topics in Syntax; Acquisition of understudied languages**

Topics vary.

PRE-REQUISITES: LING 311 Investigation of the acquisition of the morphosyntax of languages that are not extensively documented, with a particular focus on Tashlhiyt Berber. Methodologies reviewed include the construction of a corpus of child-directed speech and the design of behavioral studies to model the children's hypothesis space and developmental timeline. Knowledge from LING444 will be helpful but is not required.

0101	Imane Bou-Saboun MW 12:00pm - 1:15pm	Seats (Total: 10) MMH 1304

LING444 **Child Language Acquisition**

Prerequisite: LING311.

Examines language acquisition in infancy and early childhood: the nature of children's linguistic representations and how these develop naturally. Role of (possible) innate linguistic structure and interaction of such structure with experience. Evaluation of methods and results of current and classic research leading to contemporary models of language development.

0101	Jeffrey Lidz TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0118

LING448 **Advanced Laboratory Research in Linguistics**

(Perm req)

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Conducting a research project in laboratory linguistics as part of a team creating original research relevant to current issues in linguistics.

Prerequisite: Permission of ARHU-Linguistics department.

0101	Jeffrey Lidz F 11:00am - 11:50am Contact instructor or department for details.	Seats (Total: 4) MMH 1108B

LING449F **Topics in Psycholinguistics; Acquisition of wh-questions**

Critical evaluation of primary research in psycholinguistics. Relating theoretical hypotheses to experimental hypotheses and predictions. Evaluation of experimental results. Emphasis on hands-on experience and experimental methodologies. Specific topics vary.

PRE-REQUISITES: LING 311 Examination of the role of argument structure in children's acquisition of wh-questions. Methods for probing children's (1) representation of events and thematic roles in relation to verbs and arguments and (2) representation of dependencies in statements vs. questions.

0101	Yuanfan Ying TuTh 12:30pm - 1:45pm	Seats (Total: 10) MMH 1304

LING449G **Topics in Psycholinguistics; Experimental morphosyntax**

Critical evaluation of primary research in psycholinguistics. Relating theoretical hypotheses to experimental hypotheses and predictions. Evaluation of experimental results. Emphasis on hands-on experience and experimental methodologies. Specific topics vary.

PRE-REQUISITES: LING 311 and LING 321 An examination of how analytical and psycholinguistic methods can inform morphosyntactic and morphophonological theories. Focus on Semitic languages and behavioral priming experiments.

0101	Clara Cuonzo MW 3:30pm - 4:45pm	Seats (Total: 10) MMH 1304

LING499 **Directed Studies in Linguistics**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING499C **Directed Studies in Linguistics; Teaching Assistantship**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

0101	Margaret Antonisse Contact instructor or department for details.	Seats (Total: 4)
0102	Tonia Bleam Contact instructor or department for details.	Seats (Total: 4)

LING499H **Directed Studies in Linguistics**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING499R **Directed Studies in Linguistics; Understanding Language Understanding**

(Perm req)

Independent study or research on language under the supervision of a faculty member.

Restriction: Permission of department. In this class we'll ask, what does it mean to understand language? We'll look at the pieces of the puzzle from two perspectives: the sciences of the artificial (to steal a term from Herbert Simon), and the sciences o f the natural world, i.e. the study within cognitive science of the human capacity for language. Contact the instructor for information about registering for this course.

0101	Philip Resnik MW 2:00pm - 3:15pm	Seats (Total: 20) JMZ 0103

LING499S **Directed Studies in Linguistics; Speech Technology**

Independent study or research on language under the supervision of a faculty member.

PRE-REQUISITES: Permission of instructor Introduction of techniques and models used in speech technology, including a survey of methods in the last several decades. Focus on the interaction between speech technology and human speech perception, or the lack thereof in some cases. Contact the instructor for information about registering for this course.

0101	Ruolan Famularo TuTh 3:30pm - 4:45pm	Seats (Total: 10) MMH 1401G

LING611 **Issues in Syntax**

Prerequisite: LING610.

Topics of current theoretical interest examined through data from a variety of languages.

0101	Aron Hirsch M 2:00pm - 5:00pm	Seats (Total: 10) MMH 1108B

LING621 **Issues in Phonology**

Prerequisite: LING620.

Topics of current interest in phonological theory examined through data from several languages.

0101	Kate Mooney MW 10:00am - 11:15am	Seats (Total: 10) MMH 1108B

LING644 **Language Acquisition**

Prerequisite: LING640.

Interpretations of observational and experimental work on children's language development, and relationship between developmental stages and theories of human language faculties.

0101	Jeffrey Lidz W 2:00pm - 5:00pm	Seats (Total: 10) MMH 1108B

LING661 **Issues in Semantics**

Prerequisite: LING660; or permission of ARHU-Linguistics department.

A second course in semantic theory. Application of basic concepts and methods to topics of current theoretical interest.

0101	Valentine Hacquard TuTh 11:00am - 12:15pm	Seats (Total: 10) MMH 1108B

LING689 **Independent Study**

Independent studies in grammatical theory.

Contact department for information to register for this course.

LING689T **Independent Study; Pedagogy for Linguistics**

Independent studies in grammatical theory.

Designed for novice instructors to collaboratively explore and evaluate methodologies that support teaching improvement and learner achievement.

0101	Margaret Antonisse Contact instructor or department for details.	Seats (Total: 6)

LING798 **Research Papers in Linguistics**

(Perm req)

Contact department for information to register for this course.

LING799 **Master's Thesis Research**
Contact department for information to register for this course.

LING859 **Seminar in Language Acquisition**

Current topics in research on language acquisition.

0101	Jeffrey Lidz W 2:00pm - 5:00pm	Seats (Total: 10) JMZ 3122

LING888 **Doctoral Research Paper**

Students will strengthen their abilities to formulate coherent research questions, conduct research and create a publishable piece of work. In addition, the course is part of a set of requirements to advance to doctoral candidacy.

0101	Howard Lasnik Contact instructor or department for details.	Seats (Total: 5)

0401	Jeffrey Lidz Contact instructor or department for details.	Seats (Total: 5)
0601	Juan Uriagereka Contact instructor or department for details.	Seats (Total: 5)
0801	William Idsardi Contact instructor or department for details.	Seats (Total: 5)
0901	Philip Resnik Contact instructor or department for details.	Seats (Total: 5)
1001	Maria Polinsky Contact instructor or department for details.	Seats (Total: 5)
1201	Colin Phillips Contact instructor or department for details.	Seats (Total: 5)
1401	Valentine Hacquard Contact instructor or department for details.	Seats (Total: 5)
1501	Alexander Williams Contact instructor or department for details.	Seats (Total: 5)
1601	Naomi Feldman Contact instructor or department for details.	Seats (Total: 5)
1701	Ellen Lau Contact instructor or department for details.	Seats (Total: 5)

LING889 **Directed Research**
Contact department for information to register for this course.

LING896 **Research Paper in Minor Area**

Prerequisite: LING888.

This course is designed to strengthen the students' ability to do research in a minor area of expertise, and to help them create a publishable piece. In addition, the course constitutes part of a set of requirements to advance to doctoral candidacy.

Contact department for information to register for this course.

LING898 **Pre-Candidacy Research**
Contact department for information to register for this course.

LING899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MAIT Masters in the Mathematics of Advanced Industrial Tech Spring 2024

MAIT679A **Special Topics in Mathematics of Advanced Industrial Technology**

Special topics courses are intended to expose students to the latest developments in mathematical applications. As such, the content will vary depending on the instructor and the current state-of-the-art. 679 will appear with a letter appended to distinguish different topics. New 679 courses will be added as areas of interest arise.

Contact department for information to register for this course.

MAIT699 **Independent Masters Project**

This course allows students to apply advanced mathematical methods to practical, real-world problems. Projects are supervised individually by faculty members from the MAIT Program. The project's nature is flexible and determined jointly by the student and supervisor. A detailed final report must be prepared by the student and approved by the supervisor.

0101	John Benedetto Contact instructor or department for details.	Seats (Total: 5)
0102	Wojciech Czaja Contact instructor or department for details.	Seats (Total: 1)
0501	John Benedetto Contact instructor or department for details.	Seats (Total: 10)
0902	Wojciech Czaja Contact instructor or department for details.	Seats (Total: 10)
2911	Andrew Kebo Contact instructor or department for details.	Seats (Total: 5)

MATH Mathematics Spring 2024

MATH003 **Developmental Mathematics**

A review of Intermediate High School Algebra intended for students preparing for one of the credit bearing Fundamental Studies Math Courses. It is taught in special computer labs using a self-paced computer program. The curriculum will be geared toward the student's level of algebra skills and eventual goals. There is a special fee for the course that may be applied in addition to the regular tuition charge. Students should refer to the schedule of classes for details on fees as they apply to a particular semester. The course does not carry any credit toward any degree at the University. The course is repeatable. Topics will be chosen from exponents, polynomials, linear equations, quadratic equations as well as polynomial, rational, exponential and logarithm functions and elementary probability or statistics, depending on the student.

Students must pay a special math fee.

0601	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 20) CEN 0200
0602	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 20) PHY 4220
0701	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 20) CEN 0200
0702	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 20) PHY 4220

MATH007 **Algebra for MATH 107**

A review of Intermediate High School Algebra intended for students preparing for MATH107. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH107, the same semester, which also meets 5 days per week. Continuation in MATH107 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include linear equations, linear inequalities, operations on polynomials, factoring, solutions of quadratic equations, as well as exponential and logarithm functions. MATH007 does not carry any credit toward any degree at the University, nor is it graded. It leads to either MATH107 or MATH003, both of which are graded.

1201	Debra Franklin MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) PHY 4222

MATH013 **Algebra for MATH 113**

A review of Intermediate High School Algebra intended for students preparing for MATH113. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH113, the same semester, which also meets 5 days per week. Continuation in MATH113 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations, quadratic equations, as well as polynomial, rational, exponential, and logarithm functions, and trigonometry. MATH013 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH113 (or MATH107), or MATH003, all of which are graded.

1101	Steven Sax MTuWThF 10:00am - 10:50am	Seats (Total: 22) MTH 0402
1201	Steven Sax MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0402

MATH015 **Algebra for MATH 115**

A review of Intermediate High School Algebra intended for students preparing for MATH115. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH115, the same semester, which also meets 5 days per week. Continuation in MATH115 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential, logarithm functions and trigonometry. MATH015 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH115 (or MATH107 or MATH113), or MATH003, all of which are graded.

1101	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 20) ATL 1109
1201	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) ATL 1109

MATH107 **Introduction to Math Modeling and Probability**

Prerequisite: Must have math eligibility of MATH107 or higher; and math eligibility is based on Math Placement Exam or successful completion of MATH003 with appropriate eligibility. Restriction: Not open to students majoring in mathematics, engineering, business, life sciences, and the physical sciences; must not have completed STAT100, MATH113, MATH120, MATH135, MATH136 or MATH140 with a C- or better; must not have completed any MATH or STAT course with a prerequisite of MATH120, MATH136, or MATH140. Formerly: MATH110 and MATH111.

A goal is to convey the power of mathematics as shown by a variety of problems which can be modeled and solved by quantitative means. Also included is an introduction to probability. Topics include data analysis, equations, systems of equations, inequalities, elementary linear programming, Venn diagrams, counting, basic probability, permutations, combinations, tree diagrams, standard normal and normal distributions. The mathematics of finance is covered. The course includes problem solving and decision making in economics, management, and social sciences.

0101	Mengzi Xie MWF 11:00am - 11:50am	Seats (Total: 25) MTH 0304
0201	Mengzi Xie MWF 12:00pm - 12:50pm	Seats (Total: 25) MTH 0302
0301	Julie Daberkow MW 1:00pm - 2:15pm	Seats (Total: 25) MTH 0305
0401	Ayala Nuriely Kimel TuTh 2:00pm - 3:15pm	Seats (Total: 24) MTH B0429
1201	Debra Franklin MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) PHY 4222

MATH113 **College Algebra and Trigonometry**

Prerequisite: Must have math eligibility of MATH113 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH 003 with appropriate eligibility. Restriction: Must not have completed MATH115, MATH120, MATH135, MATH136 or MATH140 with a grade of C- or higher; and must not have completed any course with a prerequisite of MATH120, MATH130, MATH136, or MATH140. Credit only granted for: MATH113 or MATH115.

Topics include elementary functions including graphs and applications of: polynomial, rational, exponential, and logarithmic functions. Systems of equations and applications. Trigonometric functions: angle and radian measure, graphs and applications.

0111	Barbara Michelato TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 27) ARM 0131 JMP 2202	Discussion
0112	Barbara Michelato TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 27) ARM 0131 JMP 2202	Discussion
0121	Barbara Michelato TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 27) ARM 0131 JMP 2202	Discussion
0122	Barbara Michelato TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 27) ARM 0131 JMP 2202	Discussion
0131	Barbara Michelato TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 26) ARM 0131 JMP 2202	Discussion
0132	Barbara Michelato TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 26) ARM 0131 JMP 1109	Discussion
0211	Barbara Michelato TuTh 11:00am - 12:15pm W 9:00am - 9:50am	Seats (Total: 27) ARM 0131 JMP 1202	Discussion
0212	Barbara Michelato TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 27) ARM 0131 JMP 1202	Discussion

0221	Barbara Michelato TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 28) ARM 0131 JMP 1202	Discussion
0222	Barbara Michelato TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	Seats (Total: 28) ARM 0131 JMP 1202	Discussion
1101	Steven Sax MTuWThF 10:00am - 10:50am	Seats (Total: 22) MTH 0402	
1201	Steven Sax MTuWThF 12:00pm - 12:50pm	Seats (Total: 22) MTH 0402	

MATH115 **Precalculus**

Prerequisite: Must have math eligibility of MATH115 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH003 with appropriate eligibility. Or MATH113. Restriction: Must not have completed MATH140 with a grade of C- or better; and must not have completed any MATH or STAT course with a prerequisite of MATH140 or MATH141. Credit only granted for: MATH113 or MATH115.

Preparation for MATH120, MATH130 or MATH140. Elementary functions and graphs: polynomials, rational functions, exponential and logarithmic functions, trigonometric functions. Algebraic techniques preparatory for calculus.

Preparation for MATH220 or MATH140. If purchasing used books additional software may be required.

0111	Raluca Rosca MWF 9:00am - 9:50am MWF 10:00am - 10:50am	Seats (Total: 31) ESJ 0224 PHY 4207	Discussion
0121	Raluca Rosca MWF 9:00am - 9:50am MWF 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 PHY 4207	Discussion
0131	Raluca Rosca MWF 9:00am - 9:50am MWF 12:00pm - 12:50pm	Seats (Total: 30) ESJ 0224 PHY 4207	Discussion
0141	Raluca Rosca MWF 9:00am - 9:50am MWF 1:00pm - 1:50pm	Seats (Total: 30) ESJ 0224 PHY 4207	Discussion

0151	Raluca Rosca MWF 9:00am - 9:50am TuTh 9:30am - 10:45am	Seats (Total: 30) ESJ 0224 PHY 4207	Discussion
0171	Raluca Rosca MWF 9:00am - 9:50am TuTh 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 PHY 4207	Discussion
1101	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 27) ATL 1109	
1201	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 20) ATL 1109	

MATH120 **Elementary Calculus I**

Prerequisite: 1 course with a minimum grade of C- from (MATH113, MATH115). Or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences; Must not have completed MATH130, MATH136 or MATH140 with a grade of C- or higher. Formerly: MATH220.

Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

0111	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 28) PHY 1412 MTH 0401	Discussion
0121	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 28) PHY 1412 MTH 0401	Discussion
0131	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 28) PHY 1412 MTH 0401	Discussion
0141	Timothy Pilachowski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 28) PHY 1412 MTH 0401	Discussion

0211	Sean Gruber MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0401	Discussion
0212	Sean Gruber MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0409	Discussion
0221	Sean Gruber MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0401	Discussion
0222	Sean Gruber MWF 2:00pm - 2:50pm Th 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0409	Discussion
0231	Sean Gruber MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0401	Discussion
0232	Sean Gruber MWF 2:00pm - 2:50pm Th 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0409	Discussion
0241	Sean Gruber MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0401	Discussion
0242	Sean Gruber MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0409	Discussion
0311	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 29) ESJ 0224 MTH B0427	Discussion
0312	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 27) ESJ 0224 MTH B0425	Discussion

0321	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 28) ESJ 0224 MTH B0427	Discussion
0322	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 28) ESJ 0224 MTH B0425	Discussion
0331	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 29) ESJ 0224 MTH B0427	Discussion
0332	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 27) ESJ 0224 MTH B0425	Discussion
0341	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 28) ESJ 0224 MTH B0427	Discussion
0342	Mestiyage Gunatilleka TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 27) ESJ 0224 MTH B0425	Discussion
0411	Jenna Zomback TuTh 11:00am - 12:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0303	Discussion
0412	Jenna Zomback TuTh 11:00am - 12:15pm W 8:00am - 8:50am	Seats (Total: 29) ARM 0126 MTH 0409	Discussion
0421	Jenna Zomback TuTh 11:00am - 12:15pm W 9:00am - 9:50am	Seats (Total: 30) ARM 0126 MTH 0303	Discussion
0422	Jenna Zomback TuTh 11:00am - 12:15pm W 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0409	Discussion

0431	Jenna Zomback TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0303	Discussion
0432	Jenna Zomback TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0409	Discussion
0441	Jenna Zomback TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0303	Discussion
0442	Jenna Zomback TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0409	Discussion

MATH121 **Elementary Calculus II**

Prerequisite: MATH120, MATH130, MATH136, or MATH140. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences; Must not have completed MATH141 with a grade of C- or higher. Formerly: MATH221.

Trigonometric functions, techniques of integration, infinite series, differential equations, probability.

0101	Benjamin Castle MWF 12:00pm - 12:50pm	Seats (Total: 22) MTH 1311	

MATH135 **Discrete Mathematics for Life Sciences**

Prerequisite: Minimum grade of C- in MATH113 or MATH115; or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Must be in the Biological Sciences or Neuroscience major; and not open to students majoring in mathematics, engineering, or the physical sciences.

Basic discrete mathematics, with emphasis on relevant models and techniques to the life sciences.

0111	Hussain Ibdah TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 27) ARM 0135 AJC 2132	Discussion
0112	Hussain Ibdah TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 27) ARM 0135 MTH B0427	Discussion

0121	Hussain Ibdah TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 27) ARM 0135 AJC 2132	Discussion
0122	Hussain Ibdah TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 27) ARM 0135 MTH B0427	Discussion
0131	Hussain Ibdah TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 27) ARM 0135 AJC 2132	Discussion
0141	Hussain Ibdah TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 27) ARM 0135 AJC 2132	Discussion

MATH136 **Calculus for Life Sciences**

Prerequisite: Minimum grade of C- in MATH135. Restriction: Must be in the Biological Sciences or Neuroscience major; Must not have completed MATH140 with a grade of C- or higher.

Continuation of MATH135, including basic ideas of differential and integral calculus, with emphasis on elementary techniques and applications to the life sciences.

0111	Todd Rowland MWF 2:00pm - 2:50pm TuTh 9:00am - 9:50am	Seats (Total: 27) BRB 1101 MTH 0201	Discussion
0112	Todd Rowland MWF 2:00pm - 2:50pm TuTh 9:00am - 9:50am	Seats (Total: 27) BRB 1101 MTH B0425	Discussion
0121	Todd Rowland MWF 2:00pm - 2:50pm TuTh 10:00am - 10:50am	Seats (Total: 27) BRB 1101 MTH 0201	Discussion
0122	Todd Rowland MWF 2:00pm - 2:50pm TuTh 10:00am - 10:50am	Seats (Total: 28) BRB 1101 MTH B0425	Discussion
0131	Todd Rowland MWF 2:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 28) BRB 1101 MTH 0201	Discussion

0141	Todd Rowland MWF 2:00pm - 2:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 27) BRB 1101 MTH 0201	 Discussion

MATH140 **Calculus I**

Prerequisite: Minimum grade of C- in MATH115.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	James Hanson MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0131 MTH 0407	 Discussion
0112	James Hanson MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 28) ARM 0131 PHY 2124	 Discussion
0121	James Hanson MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0407	 Discussion
0122	James Hanson MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0403	 Discussion
0131	James Hanson MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 0407	 Discussion
0132	James Hanson MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 0403	 Discussion
0141	James Hanson MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0131 MTH 0407	 Discussion

0142	James Hanson MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0131 MTH 0403	Discussion
0211	Kendall Williams MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 26) ESJ 2208 MTH B0425	Discussion
0212	Kendall Williams MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 26) ESJ 2208 MTH 0307	Discussion
0221	Kendall Williams MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 26) ESJ 2208 MTH B0425	Discussion
0222	Kendall Williams MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 26) ESJ 2208 MTH 0307	Discussion
0231	Kendall Williams MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 26) ESJ 2208 MTH B0425	Discussion
0241	Kendall Williams MWF 11:00am - 11:50am TuTh 3:00pm - 3:50pm	Seats (Total: 26) ESJ 2208 MTH 0307	Discussion
0311	Kendall Williams MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 29) ESJ 2208 MTH 0405	Discussion
0321	Kendall Williams MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ESJ 2208 MTH 0402	Discussion
0322	Kendall Williams MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 28) ESJ 2208 MTH 0402	Discussion

0323	Kendall Williams MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 28) ESJ 2208 MTH 0103	Discussion

MATH141 **Calculus II**

Prerequisite: Minimum grade of C- in MATH140.

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 25) ESJ 2208 ESJ 2212	Discussion
0113	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 8:00am - 9:20am	Seats (Total: 25) ESJ 2208 ESJ 2212	Discussion
0121	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 25) ESJ 2208 ESJ 2212	Discussion
0123	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 9:30am - 10:50am	Seats (Total: 25) ESJ 2208 ESJ 2212	Discussion
0131	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 2208 ESJ 2212	Discussion
0132	Timothy Pilachowski MWF 9:00am - 9:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 2208 ESJ 2212	Discussion
0211	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 8:00am - 9:20am	Seats (Total: 25) ARM 0135 MTH 0102	Discussion

0212	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 8:00am - 9:20am	Seats (Total: 25) ARM 0135 MTH 0303	Discussion
0213	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 8:00am - 9:20am	Seats (Total: 25) ARM 0135 MTH 0302	Discussion
0221	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0102	Discussion
0222	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0303	Discussion
0223	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0302	Discussion
0231	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ARM 0135 MTH 0102	Discussion
0232	Anna Szczekutowicz MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ARM 0135 MTH 0302	Discussion
0311	Shalin Parekh MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) ARM 0131 MTH 0105	Discussion
0312	Shalin Parekh MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) ARM 0131 MTH B0429	Discussion
0313	Shalin Parekh MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) ARM 0131 MTH 0305	Discussion

0321	Shalin Parekh MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ARM 0131 MTH 0105	Discussion
0323	Shalin Parekh MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ARM 0131 MTH 0305	Discussion
0331	Shalin Parekh MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0131 MTH 0105	Discussion
0411	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) HJP 0226 MTH 0405	Discussion
0412	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) HJP 0226 MTH 1313	Discussion
0413	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 11:00am - 12:20pm	Seats (Total: 25) HJP 0226 MTH 0411	Discussion
0421	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) HJP 0226 MTH 0405	Discussion
0422	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) HJP 0226 MTH 1313	Discussion
0423	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) HJP 0226 MTH 0411	Discussion
0431	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) HJP 0226 MTH 0405	Discussion

0432	Stefan Doboszczak MWF 1:00pm - 1:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) HJP 0226 MTH 0411	Discussion
0511	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ARM 0135 MTH 0409	Discussion
0512	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ARM 0135 MTH 0104	Discussion
0513	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) ARM 0135 MTH 0302	Discussion
0521	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0522	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH 0104	Discussion
0523	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH 0304	Discussion
0531	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 3:30pm - 4:50pm	Seats (Total: 25) ARM 0135 MTH B0423	Discussion
0532	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 3:30pm - 4:50pm	Seats (Total: 25) ARM 0135 MTH 0104	Discussion
0611	Anna Szczekutowicz MWF 3:00pm - 3:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 25) CHE 2108 JMZ 0122	Discussion

0612	Anna Szczekutowicz MWF 3:00pm - 3:50pm TuTh 12:30pm - 1:50pm	Seats (Total: 22) CHE 2108 JMZ 0103	 Discussion
0621	Anna Szczekutowicz MWF 3:00pm - 3:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) CHE 2108 JMZ 0122	 Discussion
0622	Anna Szczekutowicz MWF 3:00pm - 3:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 22) CHE 2108 JMZ 0208	 Discussion

MATH141H **Calculus II**

Prerequisite: Minimum grade of C- in MATH140.

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

Restrictions: For Honors College students only. Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0101	Sana Jahedi W 10:00am - 11:50am MF 10:00am - 10:50am	Seats (Total: 20) MTH 0106 MTH 0106	
0201	Sean Gruber M 12:00pm - 1:50pm WF 12:00pm - 12:50pm	Seats (Total: 21) MTH 0201 MTH 0201	

MATH199A **Special Topics in Mathematics**

(Perm req)

Many games have a mathematical component. We will introduce several games, play them, and investigate the underlying mathematics. Students will work in teams on projects that involve developing strategies for new games.

Contact department for information to register for this course.

MATH206 **Introduction to Matlab**

Prerequisite: 1 course with a minimum grade of C- from (MATH136, MATH140).

This course is intended to prepare students for subsequent courses requiring computation with MATLAB. Covers basics of MATLAB including simple commands, variables, solving equations, graphing differentiation and integration, matrices and vectors, functions, M-files and fundamentals of programming in the MATLAB environment. When offered in Winter and Summer terms, the course is offered in a format suitable for online distance learning.

0101	Terence Long **Meets January 24, 2024 - March 3, 2024** Class time/details on ELMs	Seats (Total: 545) ONLINE

MATH212 **Elements of Numbers and Operations**

Prerequisite: Must have completed one year of college preparatory algebra. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Reviews and extends topics of arithmetic and number theory related to the elementary school curriculum, particularly number systems and operations with natural numbers, integers, and rationals.

0101	Luis Royo Romero MWF 9:00am - 9:50am	Seats (Total: 20) PHY 2211
0301	Luis Royo Romero MWF 1:00pm - 1:50pm	Seats (Total: 20) PHY 4221

MATH213 **Elements of Geometry and Measurement**

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Properties of geometric objects in two and three dimensions; parallel lines, curves and polygons; ratio, proportion, similarity; transformational geometry and measurement, constructions, justifications and proofs.

0201	Matthew Wilson MWF 11:00am - 11:50am	Seats (Total: 22) TWS 0223
0301	Matthew Wilson MWF 12:00pm - 12:50pm	Seats (Total: 22) TWS 0223

MATH214 **Elements of Probability and Statistics**

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Permutations and combinations; probability; collecting and representing data; using statistics to analyze and interpret data.

0201	Karen McLaren MWF 9:00am - 9:50am	Seats (Total: 22) MTH 1311	

MATH240 **Introduction to Linear Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141). Credit only granted for: MATH240, MATH341, or MATH461.

Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms.

All Sections will use MATLAB.

0111	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0112	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0401	Discussion
0113	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 29) ARM 0126 MTH 0403	Discussion
0121	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0122	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0123	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 29) ARM 0126 MTH 0403	Discussion
0131	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion

0141	Hatice Sahinoglu MWF 11:00am - 11:50am TuTh 3:00pm - 3:50pm	Seats (Total: 29) ARM 0126 MTH 0101	Discussion
0211	Archana Khurana MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 29) BRB 1101 MTH B0423	Discussion
0212	Archana Khurana MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 30) BRB 1101 MTH 0101	Discussion
0213	Archana Khurana MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 31) BRB 1101 MTH 0105	Discussion
0221	Archana Khurana MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) BRB 1101 MTH B0423	Discussion
0222	Archana Khurana MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) BRB 1101 MTH 0101	Discussion
0223	Archana Khurana MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 29) BRB 1101 MTH 0105	Discussion
0231	Archana Khurana MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) BRB 1101 MTH B0423	Discussion
0241	Archana Khurana MWF 12:00pm - 12:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 30) BRB 1101 MTH B0423	Discussion
0311	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 30) ESJ 0202 MTH 0401	Discussion

0312	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 30) ESJ 0202 MTH B0423	 Discussion
0313	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) ESJ 0202 MTH 0201	 Discussion
0321	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) ESJ 0202 MTH B0427	 Discussion
0322	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 30) ESJ 0202 MTH 0306	 Discussion
0323	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) ESJ 0202 PLS 1117	 Discussion
0331	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) ESJ 0202 MTH 0103	 Discussion
0332	Wiseley Wong MWF 1:00pm - 1:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) ESJ 0202 PLS 1119	 Discussion

MATH241 **Calculus III**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

All sections will use MATLAB.

0111	Jonathan DeWitt MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 27) ARM 0135 ESJ 1215	 Discussion

0121	Jonathan DeWitt MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 27) ARM 0135 ESJ 1215	Discussion
0131	Jonathan DeWitt MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0135 ESJ 1215	Discussion
0132	Jonathan DeWitt MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 28) ARM 0135 ESJ 1215	Discussion
0141	Jonathan DeWitt MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 28) ARM 0135 ESJ 1215	Discussion
0142	Jonathan DeWitt MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 28) ARM 0135 ESJ 1215	Discussion
0211	James Conway MWF 1:00pm - 1:50pm TuTh 8:00am - 8:50am	Seats (Total: 27) ARM 0135 MTH B0423	Discussion
0212	James Conway MWF 1:00pm - 1:50pm TuTh 8:00am - 8:50am	Seats (Total: 27) ARM 0135 MTH B0421	Discussion
0221	James Conway MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 27) ARM 0135 MTH B0421	Discussion
0222	James Conway MWF 1:00pm - 1:50pm TuTh 9:30am - 10:20am	Seats (Total: 27) ARM 0135 ATL 2316	Discussion
0231	James Conway MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 27) ARM 0135 MTH 0307	Discussion

0232	James Conway MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 27) ARM 0135 ATL 2316	Discussion
0241	James Conway MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 27) ARM 0135 HBK 1108	Discussion
0242	James Conway MWF 1:00pm - 1:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 28) ARM 0135 ATL 2352	Discussion
0311	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 27) PHY 1412 MTH 0103	Discussion
0312	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 27) PHY 1412 MTH 0306	Discussion
0321	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 27) PHY 1412 MTH 0103	Discussion
0322	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 27) PHY 1412 MTH 0306	Discussion
0331	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 27) PHY 1412 MTH 0103	Discussion
0332	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 27) PHY 1412 MTH 0306	Discussion
0341	Roohollah Ebrahimian MWF 9:00am - 9:50am TuTh 12:30pm - 1:20pm	Seats (Total: 27) PHY 1412 MTH 0103	Discussion

0342	Roohollah Ebrahimian	Seats (Total: 27)	
	MWF 9:00am - 9:50am	PHY 1412	
	TuTh 12:30pm - 1:20pm	MTH 0306	Discussion

MATH241H **Calculus III**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

For Honors College students only. MATH 241H will use MATLAB.

0101	Jaime Paradela Diaz	Seats (Total: 20)	
	MWF 10:00am - 10:50am	MTH 0307	
	W 11:00am - 11:50am	MTH 0307	

MATH243 **Introduction to Linear Algebra and Differential Equations**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: ENEE290 or MATH243. Additional information: Does not satisfy requirements for the Mathematics major. Does not satisfy prerequisite requirements for courses requiring MATH240 or MATH246.

The basics of linear algebra and differential equations, with an emphasis on general physical and engineering applications. Aimed at students who need the material for future coursework but do not need as much depth and rigor as provided by MATH240 and MATH246.

0101	Terence Long	Seats (Total: 25)	
	MWF 3:00pm - 3:50pm	MTH 0402	
	Tu 3:00pm - 3:50pm	MTH 0402	Discussion

MATH246 **Differential Equations for Scientists and Engineers**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

All sections will use MATLAB.

0111	Francisco Arana Herrera	Seats (Total: 28)	
	MWF 11:00am - 11:50am	ARM 0131	
	Tu 8:00am - 8:50am	MTH 0104	Discussion

0113	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 28) ARM 0131 MTH 0402	Discussion
0121	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0104	Discussion
0123	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 9:00am - 9:50am	Seats (Total: 28) ARM 0131 MTH 0402	Discussion
0131	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 0104	Discussion
0132	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 10:00am - 10:50am	Seats (Total: 28) ARM 0131 MTH 1308	Discussion
0141	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 28) ARM 0131 MTH 0104	Discussion
0142	Francisco Arana Herrera MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 28) ARM 0131 MTH 1308	Discussion
0211	Matei Machedon TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 29) ARM 0135 PHY 2213	Discussion
0213	Matei Machedon TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 31) ARM 0135 MTH 1313	Discussion
0221	Matei Machedon TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 29) ARM 0135 PHY 2213	Discussion

0223	Matei Machedon TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 29) ARM 0135 MTH 1313	Discussion
0231	Matei Machedon TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 29) ARM 0135 PHY 2213	Discussion
0232	Matei Machedon TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 29) ARM 0135 MTH 0409	Discussion
0241	Matei Machedon TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 29) ARM 0135 PHY 2213	Discussion
0242	Matei Machedon TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 29) ARM 0135 MTH 0409	Discussion
0311	Michael Jakobson TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 1313	Discussion
0313	Michael Jakobson TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 27) ARM 0126 MTH 0307	Discussion
0321	Michael Jakobson TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 1313	Discussion
0323	Michael Jakobson TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 27) ARM 0126 MTH 0307	Discussion
0331	Michael Jakobson TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 1313	Discussion

0332	Michael Jakobson TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 27) ARM 0126 MTH 0305	Discussion
0341	Michael Jakobson TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 1313	Discussion
0342	Michael Jakobson TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 27) ARM 0126 MTH 0305	Discussion

MATH246H **Differential Equations for Scientists and Engineers**

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

For Honors College students only. MATH 246H will use MATLAB.

0101	Clarke Safsten MWF 1:00pm - 1:50pm	Seats (Total: 20) PHY 2106	
0201	Tobias von Petersdorff MWF 12:00pm - 12:50pm	Seats (Total: 20) MTH 0104	

MATH310 **Introduction to Mathematical Proof**

Prerequisite: Minimum grade of C- in MATH141; and must have completed or be concurrently enrolled in MATH240, MATH341, or MATH461; and must have completed or be concurrently enrolled in MATH241 or MATH340. Restriction: Must be in a major within the CMNS-Mathematics department; or permission of the CMNS-Mathematics department. Additional information: Math majors may not use this course to satisfy an upper-level requirement.

To develop the students' ability to construct a rigorous proof of a mathematical claim. Students will also be made aware of mathematical results that are of interest to those wishing to analyze a particular mathematical model. Topics will be drawn from logic, set theory, structure of the number line, elementary topology, metric spaces, functions, sequences and continuity.

0101	Kathryn Truman MWF 11:00am - 11:50am	Seats (Total: 32) PHY 2106	
0201	Steve Halperin MWF 12:00pm - 12:50pm	Seats (Total: 32) PHY 2106	

0301	Sean Gruber MWF 10:00am - 10:50am	Seats (Total: 32) MTH 0201

MATH312 **Mathematical Reasoning and Proof for Pre-Service Middle School Teachers**

Prerequisite: MATH212 and MATH213. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education).

Reasoning and proof as addressed in the middle school curriculum. Topics include proportional reasoning, logic and proof, types of numbers, field axioms, Euclidean and non-Euclidean geometry.

0101	Farhaana Nyamekye-Frazier MW 3:30pm - 4:45pm	Seats (Total: 25) EGR 3102

MATH314 **Introduction to Probability, Data, Analysis and Statistics for Preservice Middle School Teachers**

Prerequisite: MATH214. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH314 or STAT100.

Analysis of bivariate data, probability and randomness, law of large numbers, central limit theorem, probabilities for independent and dependent events, counting techniques, random variables and probability distributions, expected values, sampling distributions, and confidence intervals.

0101	Michael Krell MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2206

MATH341 **Multivariable Calculus, Linear Algebra, Differential Equations II (Honors)**

(Perm req)

Prerequisite: Minimum grade of C- in MATH340. Restriction: Open to second semester Freshmen only. Credit only granted for: MATH240, MATH246, MATH341 or MATH461.

A continuation of MATH340.

0101	James Conway MWF 11:00am - 12:15pm	Seats (Total: 25) MTH 0405
0201	Roohollah Ebrahimian MWF 12:00pm - 1:15pm	Seats (Total: 30) CSI 2117

MATH386 **Experiential Learning**

(Perm req)

Prerequisite: Must have learning proposal approved by the CMNS Mathematics Department.

Contact department for information to register for this course.

MATH401 **Applications of Linear Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Various applications of linear algebra: theory of finite games, linear programming, matrix methods as applied to finite Markov chains, random walk, incidence matrices, graphs and directed graphs, networks and transportation problems.

0201	Ling Liang MWF 12:00pm - 12:50pm	Seats (Total: 35) CHM 1224
0301	Raluca Rosca MWF 1:00pm - 1:50pm	Seats (Total: 38) HBK 0109
0501	Ke Chen TuTh 11:00am - 12:15pm	Seats (Total: 36) PHY 2211
0601	Jose Rigoberto Enrique Zelada Cifuentes TuTh 12:30pm - 1:45pm	Seats (Total: 35) AJC 2121
0701	Yaxiong Liu TuTh 2:00pm - 3:15pm	Seats (Total: 35) CSI 3120

MATH402 **Algebraic Structures**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Must not be in any of the following programs (Mathematics (Master's); Mathematics (Doctoral)). Credit only granted for: MATH402 or MATH403.

For students having only limited experience with rigorous mathematical proofs. Parallels MATH403. Students planning graduate work in mathematics should take MATH403. Groups, rings, integral domains and fields, detailed study of several groups; properties of integers and polynomials. Emphasis is on the origin of the mathematical ideas studied and the logical structure of the subject.

0101	Todd Rowland MWF 10:00am - 10:50am	Seats (Total: 25) PHY 2211

MATH403 **Introduction to Abstract Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH340); and 1 course with a minimum grade of C- from (MATH341, MATH241); and minimum grade of C- in MATH310. Or students who have taken courses with comparable content may contact the department. Credit only granted for: MATH402 or MATH403.

Integers; groups, rings, integral domains, fields.

0101	Patrick Brosnan MWF 11:00am - 11:50am	Seats (Total: 35) CHM 1224

0201	James Conway MWF 10:00am - 10:50am	Seats (Total: 35) PHY 2106

MATH404 **Field Theory**

Prerequisite: Minimum grade of C- in MATH403.

Algebraic and transcendental elements, Galois theory, constructions with straight-edge and compass, solutions of equations of low degrees, insolubility of the quintic equation, Sylow theorems, fundamental theorem of finite Abelian groups.

0101	Christian Zickert TuTh 2:00pm - 3:15pm	Seats (Total: 20) MTH B0421

MATH405 **Linear Algebra**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and minimum grade of C- in MATH310.

An abstract treatment of finite dimensional vector spaces. Linear transformations and their invariants.

0101	Steven Chadwick MWF 10:00am - 10:50am	Seats (Total: 35) PHY 2214
0201	Shiferaw Berhanu MWF 1:00pm - 1:50pm	Seats (Total: 35) PHY 2214

MATH406 **Introduction to Number Theory**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH241, MATH246, MATH340, MATH341, MATH461); or permission of CMNS-Mathematics department.

Integers, divisibility, prime numbers, unique factorization, congruences, quadratic reciprocity, Diophantine equations and arithmetic functions.

0101	Dori Bejleri MWF 10:00am - 10:50am	Seats (Total: 30) PHY 2124
0201	Kendall Williams MWF 1:00pm - 1:50pm	Seats (Total: 30) PHY 2124
0401	Peter Dillery TuTh 12:30pm - 1:45pm	Seats (Total: 30) PHY 2213

MATH410 **Advanced Calculus I**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and minimum grade of C- in MATH310.

Subjects covered: sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions and power series.

0101	Stefan Doboszczak MWF 10:00am - 10:50am	Seats (Total: 36) PHY 2208
0201	Anna Szczekutowicz MWF 12:00pm - 12:50pm	Seats (Total: 36) PHY 2208
0301	Terence Long MWF 2:00pm - 2:50pm	Seats (Total: 36) PHY 2106
0501	Hussain Ibdah TuTh 11:00am - 12:15pm	Seats (Total: 25) PHY 2124
0601	Rodrigo Trevino MWF 10:00am - 10:50am	Seats (Total: 36) MTH 0411

MATH411 **Advanced Calculus II**

(Perm req)

Prerequisite: Minimum grade of C- in MATH410; and permission of CMNS-Mathematics department.

Continuation of MATH410. Topics include: The topology of sets in Rn, the derivative matrix, the general chain rule, inverse and implicit function theorems with applications, smooth curves and surfaces in R3, Lagrange multipliers. Additional topics may include: Metric spaces, the contraction principle, the existence and uniqueness theorem for nonlinear first order differential equations, the Riemann integral of Rn, introduction to integration on curves and surfaces, Green's theorem.

0101	Lei Chen TuTh 11:00am - 12:15pm	Seats (Total: 30) PHY 2122
0201	Richard Wentworth TuTh 2:00pm - 3:15pm	Seats (Total: 30) PHY 2124

MATH416 **Applied Harmonic Analysis: An Introduction to Signal Processing**

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and familiarity with MATLAB is required.

Introduces students to the mathematical concepts arising in signal analysis from the applied harmonic analysis point of view. Topics include applied linear algebra, Fourier series, discrete Fourier transform, Fourier transform, Shannon Sampling Theorem, wavelet bases, multiresolution analysis, and discrete wavelet transform.

0101	Wojciech Czaja	Seats (Total: 25)
	TuTh 9:30am - 10:45am	PHY 2214

MATH420 **Mathematical Modeling**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341); and 1 course with a minimum grade of C- from (STAT400, STAT410); and 1 course with a minimum grade C- from (CMSC106, CMSC131). Cross-listed with: AMSC420. Credit only granted for: AMSC420 or MATH420.

The course will develop skills in data-driven mathematical modeling through individual and group projects. Emphasis will be placed on both analytical and computational methods, and on effective oral and written presentation of results.

0101	Radu Balan	Seats (Total: 32)
	TuTh 11:00am - 12:15pm	PHY 2214

MATH423 **Linear Optimization**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH401, MATH461, or MATH341). Credit only granted for: MATH423 or MATH498T. Formerly: MATH498T.

Mathematical formulation of linear programming, graphical solutions, simplex method, duality, transportation problems, assignment problems, and game theory.

0101	Archana Khurana	Seats (Total: 35)
	MWF 10:00am - 10:50am	MTH 0304

MATH424 **Introduction to the Mathematics of Finance**

(Perm req)

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (STAT400, STAT410); and permission of CMNS-Mathematics department. Recommended: MATH246, MATH240, MATH241, MATH340, or MATH341. Credit only granted for: BMGT444, MATH424.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Designed for students in mathematics, computer science, engineering, finance and physics. Financial markets and instruments; elements from basic probability theory; interest rates and present value analysis; normal distribution of stock returns; option pricing; arbitrage pricing theory; the multiperiod binomial model; the Black-Scholes option pricing formula; proof of the Black-Scholes option pricing formula and applications; trading and hedging of options; Delta hedging; utility functions and portfolio theory; elementary stochastic calculus; Ito's Lemma; the Black-Scholes equation and its conversion to the heat equation.

0101	Steven Chadwick	Seats (Total: 32)
	MWF 12:00pm - 12:50pm	PHY 2124

MATH430 **Euclidean and Non-Euclidean Geometries**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461).

Hilbert's axioms for Euclidean geometry. Neutral geometry: the consistency of the hyperbolic parallel postulate and the inconsistency of the elliptic parallel postulate with neutral geometry. Models of hyperbolic geometry. Existence and properties of isometries.

0101	Abror Pirnapasov	Seats (Total: 32)
	MWF 1:00pm - 1:50pm	PHY 2211

MATH437 **Differential Forms**

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Recommended: MATH405, MATH403, MATH436, MATH410, or MATH432.

Introduction to differential forms and their applications, and unites the fundamental theorems of multivariable calculus in a general Stokes Theorem that is valid in great generality. It develops this theory and technique to perform calculations in analysis and geometry. Topics include an introduction to topological spaces, the Gauss-Bonnet Theorem, Gauss's formula for the linking number, and the Cauchy Integral Theorem. Applications include Maxwell's equations of electromagnetism, connections and gauge theory, and symplectic geometry and Hamiltonian dynamics.

0101	Tamas Darvas	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	CHE 2116

MATH446 **Axiomatic Set Theory**

Prerequisite: 1 course with a minimum grade of C- from (MATH403, MATH410).

Development of a system of axiomatic set theory, choice principles, induction principles, ordinal arithmetic including discussion of cancellation laws, divisibility, canonical expansions, cardinal arithmetic including connections with the axiom of choice, Hartog's theorem, Konig's theorem, properties of regular, singular and inaccessible cardinals.

0101	Michael Laskowski MWF 1:00pm - 1:50pm	Seats (Total: 30) MTH B0421	

MATH456 **Cryptography**

(Perm req)

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor. Cross-listed with: CMSC456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Allan Yashinski MWF 3:00pm - 3:50pm	Seats (Total: 75) SYM 0200	
0301	Dana Dachman-Soled MW 2:00pm - 3:15pm	Seats (Total: 49) CHE 2118	

MATH461 **Linear Algebra for Scientists and Engineers**

Prerequisite: Minimum grade of C- in MATH141; and must have completed a MATH or STAT course with a prerequisite of MATH141. Credit only granted for: MATH240, MATH341, or MATH461. Additional information: This course may not be used towards the upper level math requirements for MATH/STAT majors.

Basic concepts of linear algebra. This course is similar to MATH240, but with more extensive coverage of the topics needed in applied linear algebra: change of basis, complex eigenvalues, diagonalization, the Jordan canonical form.

All Sections will use MATLAB.

0111	Allan Yashinski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH B0427	 Discussion
0112	Allan Yashinski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 0304	 Discussion

0113	Allan Yashinski MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 29) ARM 0126 MTH 1313	Discussion
0121	Allan Yashinski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0122	Allan Yashinski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 0304	Discussion
0123	Allan Yashinski MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 29) ARM 0126 MTH 1313	Discussion
0131	Allan Yashinski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0427	Discussion
0132	Allan Yashinski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH 0304	Discussion
0133	Allan Yashinski MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 29) ARM 0126 MTH B0425	Discussion

MATH462 **Partial Differential Equations**

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341).

Linear spaces and operators, orthogonality, Sturm-Liouville problems and eigenfunction expansions for ordinary differential equations. Introduction to partial differential equations, including the heat equation, wave equation and Laplace's equation. Boundary value problems, initial value problems and initial-boundary value problems.

0101	Allan Yashinski MWF 11:00am - 11:50am	Seats (Total: 35) PHY 2122	

MATH463 **Complex Variables**

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340).

The algebra of complex numbers, analytic functions, mapping properties of the elementary functions. Cauchy integral formula. Theory of residues and application to evaluation of integrals. Conformal mapping.

0101	Amin Gholampour MWF 1:00pm - 1:50pm	Seats (Total: 33) MTH 0101
0201	Shiferaw Berhanu MWF 3:00pm - 3:50pm	Seats (Total: 33) PHY 2106

MATH464 **Transform Methods**

Prerequisite: 1 course with a minimum grade of C- from (MATH246, MATH341).

Fourier transform, Fourier series, discrete fast Fourier transform (DFT and FFT). Laplace transform. Poisson summations, and sampling. Optional Topics: Distributions and operational calculus, PDEs, Wavelet transform, Radon transform and applications such as Imaging, Speech Processing, PDEs of Mathematical Physics, Communications, Inverse Problems.

0101	Radu Balan TuTh 9:30am - 10:45am	Seats (Total: 25) MTH 0305

MATH470 **Mathematics for Secondary Education**

Prerequisite: MATH141 and MATH140; and must have completed one 400-level MATH course (not to include MATH461, 478, and 480's). Restriction: Must be in the Secondary Math Education major.

An advanced perspective on some of the core mathematics underlying high school mathematics courses. Topics include number systems, functions of one variable, equations, inequalities, trigonometric functions, curve fitting, and polynomials. The course includes an analysis of alternate approaches to mathematical ideas and problems, and makes connections between ideas that may have been studied separately in different high school and college courses.

0101	Dana Grosser-Clarkson TuTh 2:00pm - 3:15pm	Seats (Total: 20) PHY 1120

MATH475 **Combinatorics and Graph Theory**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and permission of CMNS-Mathematics department. Cross-listed with CMSC475. Credit only granted for: MATH475 or CMSC475.

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Wiseley Wong MWF 11:00am - 11:50am	Seats (Total: 35) PHY 2124

MATH489 **Research Interactions in Mathematics; Research Interactions in Mathematics**

(Perm req)

Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

Contact department for information to register for this course.

MATH498A **Selected Topics in Mathematics**

(Perm req)

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH498R **Selected Topics in Mathematics; Experiential Learning: Mathematics of Sports Performance Analytics**

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

Students will gain exciting hands-on experience in analytics of sports performance with relation to mathematics, statistics, and geometry of data sets. The course will involve programming via Python as well as other software.

0101	Yanir Rubinstein TuTh 12:30pm - 1:45pm	Seats (Total: 15) MTH 1308

MATH601 **Abstract Algebra II**

Prerequisite: MATH600.

Field theory, Galois theory, multilinear algebra. Further topics from: Dedekind domains, Noetherian domains, rings with minimum condition, homological algebra.

Offered Spring only.

0101	Patrick Brosnan MWF 9:00am - 9:50am	Seats (Total: 18) MTH B0431

MATH603 **Commutative Algebra**

Prerequisite: MATH600.

Ideal theory of Noetherian rings, valuations, localizations, complete local rings, Dedekind domains.

0101	Thomas Haines	Seats (Total: 25)
	MWF 11:00am - 11:50am	PHY 2208

MATH607 **Algebraic Geometry II**

Prerequisite: MATH606.

Topics in contemporary algebraic geometry chosen from among: theory of algebraic curves and surfaces, elliptic curves, Abelian varieties, theory of schemes, theory of zeta functions, formal cohomology, algebraic groups, reduction theory.

0101	Niranjan Ramachandran	Seats (Total: 20)
	MWF 10:00am - 10:50am	MTH 1311

MATH631 **Real Analysis II**

Prerequisite: MATH630.

Abstract measure and integration theory, metric spaces, Baire category theorem and uniform boundedness principle, Radon-Nikodym theorem, Riesz Representation theorem, Lebesgue decomposition, Banach and Hilbert Spaces, Banach-Steinhaus theorem, topological spaces, Arzela-Ascoli and Stone-Weierstrass theorems, compact sets and Tychonoff's theorem.

Offered Spring only.

0101	Manoussos Grillakis	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	PHY 2211

MATH660 **Complex Analysis I**

Prerequisite: MATH410 and MATH463; or students who have taken courses with comparable content may contact the department.

Linear transformations, analytic functions, conformal mappings, Cauchy's theorem and applications, power series, partial fractions and factorization, elementary Riemann surfaces, Riemann's mapping theorem.

0101	Harry Tamvakis	Seats (Total: 20)
	TuTh 9:30am - 10:45am	MTH 0411

MATH674 **Partial Differential Equations II**

Prerequisite: MATH673 or AMSC673; or permission of instructor. Cross-listed with: AMSC674. Credit only granted for: AMSC674 or MATH674.

Boundary value problems for elliptic partial differential equations via operator-theoretic methods. Hilbert spaces of functions. Duality, weak convergence. Sobolev spaces. Spectral theory of compact operators. Eigenfunction expansions.

Offered Spring only.

0101	Sandra Cerrai	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 0409

MATH675 **Analysis and PDEs**

Prerequisite: MATH630 or MATH674; or permission of instructor.

Introduction to tools of modern analysis which have been used in recent years in the study of partial differential equations: Fourier transform, Calderon-Zygmund theory, interpolation, Lebesgue spaces, Lorentz spaces, Sobolev spaces, Besov spaces, Littlewood-Paley theory, multipliers, Bernstein inequalities, the fractional Leibniz rule, Strichartz estimates, velocity averaging lemma. Applications to some of the following PDEs: the Navier-Stokes equations, Euler equations, nonlinear Schrodinger equations, nonlinear wave equations, the Patlak Keller Segel model.

0101	Huy Nguyen	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	MTH 0303

MATH689 **Research Interactions in Mathematics**

(Perm req)

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

MATH713 **Mathematical Logic II**

Prerequisite: MATH712.

Incompleteness and undecidability results of Godel, Church, Tarski and others. Recursive function. Basic proof theory and axiomatic set theory.

0101	Christian Rosendal	Seats (Total: 18)
	MWF 1:00pm - 1:50pm	MTH B0431

MATH734 **Algebraic Topology**

Prerequisite: MATH600; and MATH432 or MATH730; or students who have taken courses with comparable content may contact the department.

Singular homology and cohomology, cup products, Poincare duality, Eilenberg-Steenrod axioms, Whitehead and Hurewicz theorems, universal coefficient theorem, cellular homology.

0101	Boyu Zhang	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 1311

MATH740 **Fundamental Concepts of Differential Geometry**

Prerequisite: MATH405, MATH411, and MATH730; or students who have taken courses with comparable content may contact the department.

Manifolds, tangent vectors and differential forms, Riemannian metrics, connections, curvature, structure equations, geodesics, calculus of variations.

0101	William Goldman	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	MTH 1311

MATH744 **Lie Groups I**

Prerequisite: MATH405, MATH403, MATH411, and MATH432; or students who have taken courses with comparable content may contact the department.

An introduction to the fundamentals of Lie groups, including some material on groups of matrices and Lie algebras.

0101	Roohollah Ebrahimian	Seats (Total: 20)
	MWF 3:00pm - 3:50pm	MTH B0427

MATH799 **Master's Thesis Research**
Contact department for information to register for this course.

MATH808A **Selected Topics in Algebra**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH808C **Selected Topics in Algebra; Topics on the moduli space of curves**

Advanced topics of current interest.

0101	Amin Gholampour	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	MTH 0403

MATH808S **Selected Topics in Algebra; Special Values of L-functions**

Advanced topics of current interest.

0101	Niranjan Ramachandran	Seats (Total: 20)
	MWF 10:00am - 10:50am	Location: TBA

MATH818A **Selected Topics in Logic**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH818F **Selected Topics in Logic; Neostability and Combinatorics**

Advanced topics of current interest.

0101	Artem Chernikov	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH 0403

MATH838B **Topics in Dynamics**

Advanced topics of current interest.

0101	Bassam Fayad	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	CHM 2201

MATH848A **Selected Topics in Geometry and Topology**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848D **Selected Topics in Geometry and Topology; Symplectic and Contact Geometry: Fundamentals and Special Topics**

Advanced topics of current interest.

0101	Daniel Cristofaro-Gardiner	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ATL 2428

MATH848P **Selected Topics in Geometry and Topology; Topics in Differential Geometry**

Advanced topics of current interest.

0101	Yanir Rubinstein	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH 0303

MATH858A **Selected Topics in Analysis**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH858G **Selected Topics in Analysis; ASYMPTOTIC METHODS WITH APPLICATIONS**

Advanced topics of current interest.

0101	Dionisios Margetis	Seats (Total: 20)
	TuTh 9:30am - 10:45am	MTH 0307

MATH858N **Selected Topics in Analysis; HOMOGENEOUS DYNAMICS AND NUMBER THEORY**

Advanced topics of current interest.

0101	Matthew Welsh	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	MTH B0427

MATH868A **SelectedTopics in Complex Analysis**

Advanced topics of current interest.

Contact department for information to register for this course.

MATH898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MATH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MEES Marine-Estuarine-Environmental Sciences Spring 2024

MEES484 **Marine Microbial Ecology**

Jointly offered with: MEES684.

The primary goal of this course is to become familiar with the diversity, ecology, and biogeochemical roles of Bacteria, Archaea, microbial Eukaryotes, viruses, and fungi in the marine environment. The course will also cover the latest discoveries in molecular microbial ecology. Each main topic will begin with a lecture and will be followed by a paper discussion. For the paper discussions, each student will present selected papers specified in the syllabus (or by consensus with the course instructors). Students will also participate in class discussions.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Jacob Cram, Feng Chen	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	Location: TBA

MEES498T **Topics in Marine-Estuarine-Environmental Sciences; Marine and Environmental Biotechnology**

Lecture and/or laboratory series organized to study a selected area of marine-estuarine-environmental sciences not otherwise considered in formal courses.

Cross-listed with MEES698T. Credit only granted for MEES498T or MEES698T. Taught at Institute of Marine and Environmental Technology (IMET) and over the Interactive Video Network (IVN).

0101	Jum Sook Chung	Seats (Total: 20)
	MW 10:00am - 11:20am	Location: TBA
	Contact instructor or department for details.	

MEES601 **Applied Environmental Science**

Credit only granted for: MEES601 or MEES609A. Formerly: MEES609A.

Designed to promote an appreciation of interdisciplinarity in natural and social sciences and to provide exposure to how science can influence and inform ongoing policy and management debates. The course addresses the role of science and scientists in providing information to policy makers and managers on complex environmental challenges.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Thomas Miller, Carys Mitchelmore M 2:00pm - 3:50pm	Seats (Total: 35) Location: TBA

MEES609B **Professional Development in Marine Estuarine Environmental Science; Scientific Job Skills 101**

Training designed for existing and future careers.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Hali Kilbourne, David Nelson M 1:00pm - 1:50pm	Seats (Total: 20) Location: TBA

MEES609E **Professional Development in Marine Estuarine Environmental Science; Machine Learning in Python for Environmental Science**

Training designed for existing and future careers.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Hongsheng Bi, Jian Zhao MW 12:30pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 20) Location: TBA Location: TBA

MEES612 **Applied Bayesian Statistics**

Recommended: MEES 698B or equivalent course, students are encouraged to discuss with the instructor. Credit only granted for: MEES 608R or MEES612. Formerly: MEES608R.

This seminar will explore the advanced practices of Bayesian network and graphical model to high dimensional inter-disciplinary environmental data. Through hands-on experience and real studies from Bayesian perspectives, students will learn the basics of evaluating Bayesian network and graphical analyses, and interpreting and communicating the results. Case studies involving ecological and environmental science will be used to illustrate Bayesian analyses. The statistical programming language R and software packages such as OpenBUGS, JAGS, and STAN will be used in illustrating Bayesian models.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Dong Liang	Seats (Total: 20)
	Meets January 24, 2024 - March 13, 2024	
	TuTh 12:30pm - 1:20pm	Location: TBA

MEES617 **Hydrological Effects of Land Use Change**

Prerequisite: Statistics course and hydrology course or permission of instructor.

Detailed examination of the catchment-scale hydrological effects attributable to major land use and land cover alterations, including both anthropic and non-anthropic disturbances.

0101	Keith Eshleman	Seats (Total: 20)
	TuTh 11:00am - 12:30pm	Location: TBA

MEES621 **Biological Oceanography**

Population and community ecology of estuarine and marine systems; coastal and estuarine processes are emphasized in the context of oceans in general. Field and lab trips required.

Offered synchronously to all MEES partner institutions. Please contact the instructor(s) for access and logistical information as needed.

0101	Raleigh Hood, Judith O'Neil, Louis Plough	Seats (Total: 20)
	TuTh 1:00pm - 2:50pm	Location: TBA

MEES631 **Fish Ecology**

Restriction: Permission of instructor.

Study of the interrelationships between individuals, their communities and environment. Explores the environmental biology of fish, feeding ecology, energetics and growth, population biology, reproduction and life history, and population and community interactions.

0101	Thomas Miller, David Secor	Seats (Total: 20)
	MW 9:30am - 10:50am	Location: TBA

MEES684 **Marine Microbial Ecology**

The primary goal of this course is to become familiar with the diversity, ecology, and biogeochemical roles of Bacteria, Archaea, microbial Eukaryotes, viruses, and fungi in the marine environment. The course will also cover the latest discoveries in molecular microbial ecology. Each main topic will begin with a lecture and will be followed by a paper discussion. For the paper discussions, each student will present selected papers specified in the syllabus (or by consensus with the course instructors). Students will also participate in class discussions.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Feng Chen, Jacob Cram TuTh 11:00am - 12:15pm	Seats (Total: 15) Location: TBA

MEES687 **Next Generation Sequence and Analysis**

Credit only granted for: MEES618C or MEES687. Formerly: MEES618C. Additional information: Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

Provides a general background to sequence analysis and then move through a series of student-directed tutorials, mostly on the command line, working with datasets for the final thesis. Students who do not have data will be provided with comparable sequence files to gain fluency. The goal is to provide students with hands-on experience with Next-Generation sequence datasets and tailor the instruction to further enhance research.

0101	Tsvetan Bachvaroff Th 3:00pm - 4:50pm	Seats (Total: 20) Location: TBA

MEES698T **Special Topics in Marine-Estuarine-Environmental Sciences; Marine and Environmental Biotechnology**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Cross-listed with MEES498T. Credit only granted for MEES498T or MEES698T. Taught at Institute of Marine and Environmental Technology (IMET) and over the Interactive Video Network (IVN).

0101	Jum Sook Chung MW 10:00am - 11:20am Contact instructor or department for details.	Seats (Total: 20) Location: TBA

MEES698U **Special Topics in Marine-Estuarine-Environmental Sciences; Fire and Ecosystems**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Mark Cochrane F 9:00am - 11:50am	Seats (Total: 20) Location: TBA

MEES698Y **Special Topics in Marine-Estuarine-Environmental Sciences; Science for Environmental Management**

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

0101	William Dennison, Vanessa Nguyen F 9:00am - 11:50am	Seats (Total: 20) Location: TBA

MEES699 **Special Problems in Marine-Estuarine-Environmental Sciences**

(Perm req)

Research on specialized topics under the direction of individual faculty members.

Contact department for information to register for this course.

MEES699C **Special Problems in Marine-Estuarine-Environmental Sciences; Readings in Chesapeake Bay Biogeochemistry**

Research on specialized topics under the direction of individual faculty members.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Jeffrey Cornwell **Meets March 25, 2024 - May 10, 2024** W 9:00am - 11:00am	Seats (Total: 10) Location: TBA

MEES708T **Advanced Topics in Marine-Estuarine-Environmental Science; Science Visualization**

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

0101	Katie May Laumann W 2:00pm - 3:50pm	Seats (Total: 20) Location: TBA

MEES713 **Environmental Statistics II**

Credit only granted for: MEES708M or MEES713. Formerly: MEES708M. Additional information: Offered synchronously to all MEES partner institutions. Please contact the instructor(s) for access and logistical information as needed.

Students will extend statistical training to advanced topics of time series analysis and spatial statistics. After taking this course, students will be familiar with a variety of state-of-the-art approaches for qualitative analysis of time- and space-dependent data. Students will become competent users of these methods by practicing them in class and in their homework assignments using the statistical programming language R.

0101	Dong Liang, Vyacheslav Lyubchich TuTh 9:30am - 10:50am	Seats (Total: 20) Location: TBA

MEES718W **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Advancing Diversity, Equity, and Inclusion in Environmental Science**

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

0101	Cynthia Palinkas, James Pierson, Clara Fuchsman F 1:00pm - 2:50pm	Seats (Total: 20) Location: TBA

MEES799 **Masters Thesis Research**
Contact department for information to register for this course.

MEES898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MEES899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MIEH Maryland Institute for Applied Environmental Health Spring 2024

MIEH300 **A Public Health Perspective: Introduction to Environmental Health**

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132; and must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must have earned a minimum of 60 credits; and must be in Public Health Science program; or permission of SPHL-School of Public Health. Credit only granted for: SPHL498N or MIEH300. Formerly: SPHL498N.

Environmental health is that branch of public health that deals with the human health effects of exposure to chemical, physical, and biological agents in the community, workplace, and home. Activities within Environmental Health Sciences are associated with recognizing, assessing, understanding, and mitigating the impacts of chemical, physical, and biological agents as well as understanding how human behavior and action impacts the environment. This course focuses on the central concepts, principles, issues, and applications of the essential scientific components and strategies of control of major environmental health problems.

0101	Rianna Murray MW 9:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) SPH 1312 SPH 0225	 Lab
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0102	Rianna Murray MW 9:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) SPH 1312 SPH 0225	 Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		

0103	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am W 2:00pm - 3:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0104	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am W 2:00pm - 3:50pm	SPH 1312 SPH 0116A	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 8:00am - 9:50am	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0106	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 10:00am - 11:50am	SPH 1312 SPH 0225	Lab
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0107	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 12:00pm - 1:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0108	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 2:00pm - 3:50pm	SPH 1312 SPH 0225	Lab
	Restricted to College Park Students in the Public Health Science major (code 12140).		

MIEH309 **Environmental Health Research**

(Perm req)

This research-based course will provide undergraduates with the opportunity to work closely with one of the faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 10)
0202	Kristen Coleman Contact instructor or department for details.	Seats (Total: 10)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 10)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 40)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 10)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 20)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 10)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 10)
0209	Muhiuddin Haider Contact instructor or department for details.	Seats (Total: 10)
0210	Leena Malayil Contact instructor or department for details.	Seats (Total: 10)
0211	Rianna Murray Contact instructor or department for details.	Seats (Total: 5)

MIEH321 **Environmental Determinants of Emerging Infectious Diseases**

Prerequisite: Must have completed or be concurrently enrolled in SPHL100.

Examines the influences of environmental factors, economic development, migration, and land use changes on emergence and reemergence of infectious diseases. Explores how population growth, development, and climate change impact natural reservoirs of infectious diseases and how they are transmitted through human populations. Includes historical accounts, newly emerging and reemerging diseases.

0101	Michael Bazaco W 5:00pm - 7:30pm	Seats (Total: 30) ONLINE

MIEH325 **Introduction to Clinical Research Methods**

Introduction to Clinical Research Methods will introduce you to the importance of clinical research, including how studies are developed, structured, and implemented. You will also get hands-on experience with a variety of clinical sample collection methods. We will broadly review topics important to clinical research, including an overview of bioethics in research, the basics of clinical study structure and design, data collection, and the importance of good record keeping. You will apply this knowledge by developing your own clinical research project and creating a proposal in the structure of a grant funding application. You will also learn about topics related to clinical sample collection, including basic anatomy, the tools and procedures used, and the appropriate application of these procedures, as well as learning how to collect some basic clinical samples such as nasal swabs and blood samples.

0101	Jennifer German TuTh 12:30pm - 1:45pm	Seats (Total: 16) SPH 0116A

MIEH330 **Environmental Justice, Racism, and Environmental Health Disparities: How where you live can kill you**

Prerequisite: Minimum grade of C- in MIEH300. Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: MIEH210 or MIEH330. Formerly: MIEH210.

Examination of environmental justice history, theory and science; discussion of linkages between the physical, natural, and social environments and environmental injustice; analysis of how environmental injustice can lead to adverse health conditions and environmental health disparities; discuss environmental justice case studies; and understanding of tools that can be used to understand and address environmental justice issues.

0101	Sacoby Wilson Tu 4:00pm - 5:30pm Class time/details on ELMs	Seats (Total: 25) PLS 1146 ONLINE

MIEH415 **Airborne Infection: The Science of COVID-19 and prevention of future pandemics**

Credit only granted for: MIEH415 or MIEH615.

In the wake of the COVID-19 pandemic, the elusive pathway - the aerobiological pathway - of infection transmission remains controversial and the world remains unprepared to control pandemic respiratory viruses. This course will focus on the science of infectious disease aerobiology and explore the historical roots of confusion and current political-economic forces that impede understanding and control of airborne infection transmission. Emphasis will be on reading and interpretation of original literature, understanding and using basic mathematical models, and evaluation of intervention strategies in the context of the hierarchy of hazard controls in public health.

0101	Donald Milton, Kristen Coleman Tu 2:00pm - 3:15pm	Seats (Total: 15) SPH 0303

MIEH480 **Introduction to Occupational Health**

Prerequisite: Minimum grade of C- in MIEH300 and EPIB301. Recommended: BSCI201.

Work, the way it is organized, and the workplace environment has an impact on public health and workers' and their families' physical and psychological health. The course introduces students to the field of occupational health and safety, and ensures that workers' health is considered in all public health practice and policy. Basic concepts in occupational safety and health are discussed, as well as methods to anticipate, recognize, evaluate, and control environmental factors or stresses arising in or from the workplace. In addition to instructor-led lectures, guest speakers will be invited to discuss case studies and/or discuss workplace hazards unique to specific populations.

0101	Kathleen McPhaul Th 2:00pm - 4:30pm	Seats (Total: 16) SPH 0116A

MIEH609 **Methods in Environmental Health**

(Perm req)

This research-based rotation in environmental health sciences will provide graduate students with the opportunity to work closely with faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research experience and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)

0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH610 **Global Health Program Planning and Evaluation**

Recommended: MIEH605. Credit only granted for: MIEH610, SPHL610 or SPHL698D. Formerly: SPHL698D and SPHL610.

Development of health program and evaluation plans to address critical health problems in international settings, especially transitional or in-conflict countries. Emphasis on linking a tactical program plan to overall health problems of a nation, to include the policy and economic issues involved in assessment, implementation and evaluation.

GH01	Anton Schneider W 5:00pm - 7:30pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE

MIEH615 **Airborne Infection: The Science of COVID-19 and prevention of future pandemics**

Credit only granted for: MIEH415 or MIEH615.

In the wake of the COVID-19 pandemic, the elusive pathway - the aerobiological pathway - of infection transmission remains controversial and the world remains unprepared to control pandemic respiratory viruses. This course will focus on the science of infectious disease aerobiology and explore the historical roots of confusion and current political-economic forces that impede understanding and control of airborne infection transmission. Emphasis will be on reading and interpretation of original literature, understanding and using basic mathematical models, and evaluation of intervention strategies in the context of the hierarchy of hazard controls in public health.

0101	Kristen Coleman, Donald Milton Tu 2:00pm - 3:15pm	Seats (Total: 10) SPH 0303

MIEH690 **UMD Global STEWARDS: Experiential Exploration of Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS)**

(Perm req)

Restriction: Permission of instructor; and must be in UMD Global STEWARDS Fellows.

Experiential introduction to broad food, energy, water (FEW) nexus topics, focusing on how integration across the biological, physical, social, behavioral, computer and engineering sciences will be critical in solving FEW systems challenges. FEW nexus issues from molecular to societal levels and from local to global scales will be covered. Course meetings will include active learning-based lectures, discussions, on-campus and off-campus field trips, hands-on activities, brainstorming about interdisciplinary FEW systems projects, and guest lectures.

0101	Suhana Chattopadhyay M 10:00am - 11:30am Class time/details on ELMs	Seats (Total: 15) SPH 2234CC ONLINE

MIEH720 **Principles of Toxicology**

Prerequisite: MIEH600; or permission of instructor. Recommended: Must have completed some coursework in chemistry and/or biology.

Overview of toxicology, including exposure pathways, toxicokinetics, dermal toxicants, carcinogens, and genetic, reproductive, immuno-, nuero-, target organs, complex mixtures, structure-activity analysis, and determinants of hypo- and hyper-susceptibility. Case studies of global national and regional interest.

0101	Paul Turner Th 1:00pm - 3:45pm	Seats (Total: 25) SPH 0303	

MIEH770 **Law and Policy in Environmental Health**

Prerequisite: MIEH600; or permission of instructor.

Overview of laws that affect the environment, and the various ways in which businesses are regulated by the government in the interest of protecting the environment. International, Federal, state, and local laws and regulations related to the protection of human health and the regulation of environmental containments, including biological, physical and chemical factors affecting community health. Examination of the interactions between and differing responsibilities of various agencies enforcing environmental laws and regulations.

0101	Devon Payne-Sturges W 1:00pm - 3:00pm Class time/details on ELMs	Seats (Total: 20) ATL 2352 ONLINE	 Discussion

MIEH771 **Exposure Assessment of Environmental Hazards**

(Perm req)

Prerequisite: MIEH600; and must have completed a graduate level statistics course with a B- or higher. Or permission of instructor.

Approaches and methods for determining exposure to environmental contaminants. Biomonitoring and genetic methods to detect recent exposures. Optimizing exposure assessment.

0101	Paul Turner M 12:00pm - 2:45pm	Seats (Total: 25) ATL 2352

MIEH778 **Practical Experience in Public Health**

Practice experience and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practice experience will depend upon the student's background and career goals.

0201	Rianna Murray Contact instructor or department for details.	Seats (Total: 5)

MIEH786 **Capstone Project in Public Health**

Prerequisite: Permission of SPHL-Maryland Institute for Applied Environmental Health.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)
0209	Leena Malayil Contact instructor or department for details.	Seats (Total: 5)
0210	Abdel-Razak Kadry Contact instructor or department for details.	Seats (Total: 5)

MIEH788 **Critical Readings in Environmental Health**

In-depth examination and critical discussion of the current literature relevant to environmental health.

Contact department for information to register for this course.

MIEH789 **Independent Study**

(Perm req)

Individual reading and/or research under a specific faculty member in the department.

Contact department for information to register for this course.

MIEH799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

MIEH898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

MIEH899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

MITH Maryland Institute for Technology in the Humanities Spring 2024

MITH388 **Digital Humanities Research Assistantship**

An applied introduction to the theory and practice of digital research. The internship includes regular meetings with MITH staff, including designers, developers, information professionals, project managers, and faculty, to gain knowledge of existing digital scholarship and resources within the arts and humanities. Students may contribute to existing MITH projects or propose a small, independent research project on which they will receive support from MITH staff.

Cross-listed with ENGL388T. Credit only granted for MITH388 or ENGL388T.

0101	Jeffrey Moro	Seats (Total: 10)
	Contact instructor or department for details.	

MITH498E **Special Topics in Applied Digital Humanities; Digital Storytelling with Archives**

(Perm req)

An introduction to special topics, and technical approaches, for theoretically grounded humanities and social sciences digital research. Class meetings will introduce students to a variety of technical approaches potentially applicable to the specific topical foci; the theoretical basis for selecting, evaluating, and modifying technical approaches; and best practices in project management.

Prerequisite: Instructor permission required. Priority given to majors in Cinema and Media Studies. Cross-listed with CINE419E. Credit only granted for CINE419E or MITH498E. An examination and exercise of the reuse and repurposing of archival audiovisual content in new scholarly or creative work. Part of the course will be a survey and discussion of how different genres incorporate such visuals (experimental film vs. documentaries vs. narrative features vs. transmedia/storytelling vs. journalistic outlets), and the other part will be a lab wherein students will create a final media project - short documentary film, video essay, transmedia project, or news story - utilizing archival footage from select sources.

0101	Stephanie Sapienza	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	JMZ 1103

MITH610 **Introduction to Digital Studies in the Arts and Humanities**

An introduction to digital studies in the arts and humanities, broadly conceived as the critical, creative, and practical engagement with digital media, methods, tools, and experiences, as well as the theoretical and conceptual bases for understanding them.

Cross-listing with COMM738D. Credit only granted for MITH610 or COMM738D.

0101	Catherine Steele Tu 3:30pm - 6:30pm	Seats (Total: 15) SKN 3117	

MITH729 **Colloquium in Digital Studies**

Colloquium in support of the ARHU-MITH Graduate Certificate in Digital Studies. We will meet periodically (approximately 4-5 times a semester) to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another.

Cross-listed with COMM698M. Credit only granted for MITH729 or COMM698M.

0101	Catherine Steele **Meets January 27, 2024 - April 28, 2024** F 3:00pm - 5:00pm	Seats (Total: 25) TYD 1118	

MLAW MPower Undergraduate Law Programs Spring 2024

MLAW150 **Law in a Just Society**

Restriction: Must be in the College Park Scholars - Justice and Legal Thought program.

An exploration of the theoretical questions relating to such fundamental questions of jurisprudence as "what is law?" and "how can law be deployed as both an enemy and ally of justice?

0101	David Gray TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) CCC 1205 TWS 0201	Discussion
0102	David Gray TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) CCC 1205 TWS 0201	Discussion
0103	David Gray TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) CCC 1205 TWS 0201	Discussion

MLAW215 **Nonviolence and Restorative Justice Practices**

Students will learn about restorative justice practices including restorative inquiries, dialogues, circles and conferences and actively engage in each of these processes. Students will also practice restorative intakes and restorative mentoring techniques while building an understanding of the foundational mindset, values and key structural elements for designing and conducting restorative processes.

0101	Robert Koulish	Seats (Total: 30)
	Meets February 23, 2024 - February 25, 2024	
	F 4:00pm - 7:00pm	JMZ 0103
	Sa 9:00am - 4:00pm	JMZ 0103
	Su 9:00am - 4:00pm	JMZ 0103

MLAW304 **Introduction to Law and Social Inquiry**

Restriction: Must be in the Law and Society (MLAW) minor.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

0101	Robert Koulish	Seats (Total: 20)
	Tu 3:00pm - 5:30pm	LEF 1222

MLAW305 **Law and Legal Institutions in Social Context**

Prerequisite: MLAW304. Restriction: Must be a student in the Law and Society Minor.

An exploration of case law, statutes, and regulations separately and together in their social context.

An analysis of the legal institutions of law through a social lens focusing on judicial interpretation, case law, statutes and regulations.

0101	Brian Gilmore	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	TWS 1100
0201	Brian Gilmore	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TWS 1106

MLAW325 **Naturalization Workshop Practicum**

Recommended: MLAW 315.

The focus of this Practicum is a naturalization workshop whereby students will assist eligible Marylanders in applying for citizenship. Students will work with faculty and law students to design, plan, and implement a naturalization workshop, to take place on a Saturday in the spring semester. Students will work directly with law students and faculty.

The focus of this Practicum is a naturalization workshop whereby students will assist eligible Marylanders in applying for citizenship. Students will work with faculty, attorneys, and law students to design, plan, and implement a naturalization workshop, to take place during the secondweekend of April in the spring semester. Students will participatein assisting applicants. Students will cultivate a range of skills, including outreach, direct services, working with interpreters, and proficiency in U.S. naturalization laws and processes.

0101	Grace Benton	Seats (Total: 18)
	M 5:30pm - 6:30pm	TLF 1103

MLAW358J **Selected Topics in Law and Society; Critical Issues in Healthcare**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Diane Hoffmann	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	LEF 1221

MLAW358T **Selected Topics in Law and Society; Tackling Trafficking: The Legal System's Responses to Human Trafficking**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

An examination of domestic and international legal responses to the perpetration of the various forms of human trafficking. Students will explore policy initiatives along with civil and criminal law techniques designed to punish traffickers and protect victims.

0101	Christine White	Seats (Total: 21)
	TuTh 12:30pm - 1:45pm	ASY 3215

MLAW358U **Selected Topics in Law and Society; The Politics of Immigration Law**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Robert Koulish	Seats (Total: 20)
	W 3:00pm - 5:30pm	WDS 1114

MLAW358W **Selected Topics in Law and Society; Courts, Law and Justice**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Restriction: Must be enrolled in the Law and Society minor program. Cross-listed with GVPT331. Credit only granted for GVPT331 or MLAW358W.

0101	Michael Spivey MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 LEF 1220	Discussion
0102	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 LEF 1220	Discussion
0103	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 LEF 1220	Discussion
0104	Michael Spivey MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 TYD 1102	Discussion
0105	Michael Spivey MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ASY 2203 TYD 1102	Discussion
0106	Michael Spivey MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) ASY 2203 TYD 1132	Discussion

MLAW358Y **Selected Topics in Law and Society; Civil Rights and the Constitution**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Prerequisite: GVPT170; and GVPT331 or MLAW358W. Restriction: Must be enrolled in the Law and Society minor program. Credit only granted for GVPT432 or MLAW358Y. A study of civil rights in the American consitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, and the rights of defendants.

0101	Michael Spivey MW 3:00pm - 4:15pm	Seats (Total: 5) ASY 3207	

MLAW358Z **Selected Topics in Law and Society; Police Discretion and the 4th Amendment**

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

An exploration of the power police officers display when they apply their discretion to stop, question or arrest individuals. Students will dissect State and Federal Court decisions regarding appropriate use of these powers sanctioned by the Fourth Amendment.

0101	Christine White	Seats (Total: 24)
	MW 11:00am - 12:15pm	LEF 1220

MLAW378F **Special topics in Law and Society; Land, Shelter, and Social Justice**

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

From the evolution of tenant rights in the 20th century to the mortgage crisis of 2008, housing and land rights and disputes have figured prominently in how societies are shaped and develop over time. This course aims to explore some aspects of the diverse and increasingly complex body of laws, policies, and attempted solutions related to housing and land in a largely unequal world and society. How has private land ownership changed societies in the modern era? What is the role of the state in addressing housing shortages and injustices related to land and housing? What does a fundamental human right to housing look like in the real world? These issues, and others, including urbanization, re-colonization, climate change, and discrimination form the core of a course that will provide students with both local, national and international perspectives on a fundamental issue for all humans living today - shelter and sustenance.

0101	Brian Gilmore	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PLS 1168

MLAW378J **Special topics in Law and Society; Bioethics and the Law**

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

This seminar will examine the impact of advancements in biosciences on avariety of legal and policy issues. Topics will likely include the doctrine of informed consent, physician-assisted suicide and euthanasia,assisted reproduction, conscientious refusals to provide medical care, the allocation and sale/donation of body parts and services, and medicaland law enforcement uses of genetic information, aswell as topics arising out of the Covid-19 pandemic. In examining these various issues,students will consider the content and consistency of current law, the policy goals motivating legal regulation, the impactoftechnological innovation, and directions for legal reform.

0101	Natalie Ram	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	HBK 0123

MLAW388 **Law and Society Internship**

Participation in the Law and Society Internship (LASI) offers students the opportunity to enhance their education through practical skill building in the realm of law-related professionals.

Restricted to students within the Law and Society minor.

0101	Brandee Pettus	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

0201	Brandee Pettus	Seats (Total: 6)
	Class time/details on ELMs	ONLINE

MLAW404 **Law & Society Capstone**

Restriction: Student must be enrolled in the Law and Society minor.

An exploration of the implications of technology on law and society from a variety of perspectives.Significant issues will be taken from contemporary scholarship and court cases.

0101	Christine White	Seats (Total: 75)
	MW 12:30pm - 1:45pm	ASY 2309

MLSC MD Language Science Ctr Spring 2024

MLSC250 **Lol that's not funny: Language change and linguistic creativity in online communication**

Recent developments in technology, from texting to Zoom, have created new environments for human language use. Examining how communication is changing in these environments highlights humans' endless linguistic ingenuity -- ranging from new vocabulary and punctuation conventions to the use of hashtags, emoji and memes. At the same time, these linguistic innovations exemplify broader patterns of language change and diversity that have been documented and studied by language scientists. In this course, we will engage with the study of language variation and change through a survey of language use in different online environments, and will apply insights from linguistic research to analyze our own and others' language use in more nuanced ways.

0101	Emily Lord	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	HJP 2123

MLSC308 **PULSAR Language Science Research Seminar**

(Perm req)

Research seminar for students in the PULSAR language science program. Weekly presentations and discussions on diverse topics in language science research, as well as on developing research skills.

Restriction: Must be in PULSAR program or have permission of the instructor. Repeatable to 4 credits. Credit only granted for: BSOS338P or MLSC308. Formerly: BSOS388P.

0101	Andrea Zukowski	Seats (Total: 25)
	Contact instructor or department for details.	

MSML Machine Learning Spring 2024

MSML603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, BIOI603, MSQC603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Kemal Davaslioglu	Seats (Total: 50)
	M 6:00pm - 8:45pm	PLS 1130
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML604 Introduction to Optimization

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Recommended: DATA601.

Focuses on recognizing, solving, and analyzing optimization problems. Linear algebra overview: vector spaces and matrices, linear transformations, matrix algebra, projections, similarity transformations, norms, eigen-decomposition and SVD. Convex sets, convex functions, duality theory and optimality conditions. Unconstrained optimization: 1D search, steepest descent, Newton's method, conjugate gradient method, DFP and BFGS methods, stochastic gradient descent. Constrained optimization: projected gradient methods, linear programming, quadratic programming, penalty functions, and interior-point methods. Global search methods: simulated annealing, genetic algorithms, particle swarm optimization.

PCS1	Richard La	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 2107
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML605 Computing Systems for Machine Learning

Restriction: Must be in the MPS in Machine Learning program.

Programming, software and hardware design and implementation issues of computing systems for machine learning. Topics in the programming/software domain will include: basic Python program structure, variables and assignment, built-in data types, flow control, functions and modules; basic I/O, and file operations. Classes, object-oriented programming and exceptions. Regular expressions, database access, network programming and sockets. Introduction to the Numpy, Scipy and Matplotlib libraries. Topics in the hardware domain include computer architecture, CPUs, single- and multi-core architectures, GPUs, memory and I/O systems, persistent storage, and virtual memory. Parallel processing architectures, multiprocessing and cluster processing.

PCS1	Mohammad Nayeem Teli	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML640 **Computer Vision**

Prerequisite: DATA603 or MSML603. Cross-listed with: DATA640.

An introduction to basic concepts and techniques in computer vision. Topics include low-level operations such as image filtering, correlation, edge detection and Fourier analysis. Image segmentation, texture and color analysis. Perspective, cameras and 3D reconstruction of scenes using stereo and structure from motion. Deep learning for object detection, recognition and classification in images and video.

PCS1	Jerry Wu	Seats (Total: 50)
	F 5:00pm - 7:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSML641 **Natural Language Processing**

Prerequisite: DATA603 or MSML603. Cross-listed with: DATA641. Credit only granted for: DATA641 or MSML641.

Introduces fundamental concepts and techniques involved in getting computers to deal more intelligently with human language. Focused primarily on text (as opposed to speech), the class will offer a grounding in core NLP methods for text processing (such as lexical analysis, sequential tagging, syntactic parsing, semantic representations, text classification, unsupervised discovery of latent structure), key ideas in the application of deep learning to language tasks, and consideration of the role of language technology in modern society.

PCS1	Shabnam Tafreshi	Seats (Total: 60)
	M 6:00pm - 8:45pm	CSI 2117
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSQC Quantum Computing Spring 2024

MSQC603 **Principles of Machine Learning**

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, BIOI603, MSML603. Credit only granted for: BIOI603, DATA603, MSML603, MSQC603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Kemal Davaslioglu	Seats (Total: 50)
	M 6:00pm - 8:45pm	PLS 1130
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MSQC604 **Quantum Computing Architectures and Algorithms**

Quantum computing aims to utilize quantum properties of matter to efficiently solve problems that classical computing systems would take too long to solve. This course reviews modern noisy-intermediate scale quantum (NISQ) quantum computing architectures and algorithms for these platforms. We focus on mapping of optimization and machine learning problems onto NISQ architectures and also discuss how to leverage state-of-the-art classical simulation methods for these quantum-inspired algorithms. We review several NISQ architectures and associated software interfaces, we analyze performance for optimization and statistical sampling. We survey current literature to review and implement methods for mapping optimization and machine learning problems onto NISQ architectures and modern simulators and use them to solve and study example problems.

PCS1	Paul Lott	Seats (Total: 20)
	Tu 6:00pm - 8:45pm	PLS 1115
	Must be in Graduate Programs in Science Academy. Golden ID students are not eligible for this section.	

MUED Music Education Spring 2024

MUED155 **Fundamentals for the Classroom Teacher**

Restriction: Must be in one of the following programs (Early Childhood Education; Elementary Education) ; or must be a Pre-Elementary Education major; or must be a Pre-Early Childhood Education major.

The fundamentals of music theory and practice, related to the needs of the classroom and the kindergarten teacher.

0101	Darren Shillingford	Seats (Total: 25)
	M 4:15pm - 6:45pm	PAC 2168

MUED187 **Pre-Professional Experiences II**

(Perm req)

Prerequisite: MUED186. Restriction: Must be in Music Education program.

Regular on-site school visitation at elementary, middle and high school levels arranged to expand student understandings and reflections of music instruction in classroom settings.

0101	Allison Durbin F 2:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 25) Location: TBA

MUED216 **Percussion Technique and Pedagogy**

(Perm req)

Restriction: Must be in Music Education program.

Playing experience on percussion instruments. Historical and acoustical background. Scoring for percussion. Principles of improvisation. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

0101	Josanne Francis MWF 8:00am - 8:50am	Seats (Total: 15) PAC 2540

MUED305 **Marching Band Techniques**

(Perm req)

Restriction: Must be in Music Education program. Credit only granted for: MUED499M or MUED305. Formerly: MUED499M.

Designed to aid the student in learning how to prepare, organize, teach, and rehearse the contemporary high school marching band. Through class discussions, practical assignments, guest lecturers and audio/visual aids, students will gain a command of the terminology, pedagogy, and structure of a marching ensemble and its potential.

0101	Craig Potter MW 1:00pm - 1:50pm	Seats (Total: 15) PAC 2160

MUED311 **Teaching Elementary Instrumental Music I**

(Perm req)

Prerequisite: MUED187. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to teach fundamental musical skills at the elementary level.

0101	Mike Hewitt TuTh 11:00am - 12:15pm	Seats (Total: 20) PAC 2540

MUED322 **Teaching General Music I**

Prerequisite: MUED187 and MUED186. Restriction: Must be in Music Education program. Credit only granted for: MUED222 or MUED322. Formerly: MUED222.

Teaching General Music I is designed as a fundamental music methods course for students who are preparing for a career in general music. This course will focus on developmentally appropriate teaching practices for building musicianship in a general music setting.

0101	Robin Giebelhausen	Seats (Total: 15)	
	MWF 10:00am - 10:50am	PAC 2170	

MUED411 **Teaching Elementary Instrumental Music II**

(Perm req)

Prerequisite: MUED320 and MUED311. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary curricular-oriented, research-based, comprehensive elementary instrumental music program.

0101	Stephanie Prichard	Seats (Total: 15)	
	Tu 10:00am - 12:00pm Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED433 **Teaching Choral Music**

(Perm req)

Prerequisite: MUED422. Restriction: Must be in Music Education program. Credit only granted for: MUED472 or MUED433. Formerly: MUED472.

Preparation for teaching choral classes through the integration of conducting technique, vocal pedagogy, knowledge of repertoire, and the application of appropriate instructional strategies in the context of peer teaching and field experience assignments.

0101	Kenneth Elpus	Seats (Total: 15)	
	W 4:00pm - 6:30pm Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED474 **Field Experiences: Pre-Student Teaching**

(Perm req)

Prerequisite: MUED420 and MUED411; or (MUED472 and MUED471). Restriction: Permission of ARHU-School of Music department; and senior standing.

Field experiences to fulfill teaching requirements in K-12 music teacher education program.

0101	Samuel Gray, Christian Folk F 8:00am - 9:30am	Seats (Total: 15) PAC 2130A	

MUED484 **Student Teaching in Elementary School: Music**

(Perm req)

Corequisite: MUED494. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfills elementary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

0101	Lauren McGinley Th 5:00pm - 7:30pm Contact instructor or department for details.	Seats (Total: 15) PAC 2130A	Lab

MUED494 **Student Teaching in Secondary School: Music**

(Perm req)

Corequisite: MUED484. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfill secondary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

Students must pay a $750.00 student teaching fee.

0101	Justin Caithaml Contact instructor or department for details.	Seats (Total: 15)

MUED669 **Domain Project in Music Education I**

(Perm req)

Application of musicological and/or ethnomusicological concepts within the context of PreK-12 music teaching and learning. Synthesis of knowledge and skills related to musicology, musicology, and/or ethnomusicology pedagogy, curriculum development, and social sciences research through the development and execution of a classroom-based domain project.

0101	Stephanie Prichard Class time/details on ELMs	Seats (Total: 5) ONLINE

MUED679 **Domain Project in Music Education II**

(Perm req)

Application of concepts from music theory within the context of PreK-12 music teaching and learning. Synthesis of knowledge and skills related to music theory pedagogy, curriculum development, and social sciences research through the development and execution of a classroom-based domain project.

0101	Stephanie Prichard	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

MUED692 **Foundations and Perspectives of Music Education**

(Perm req)

Restriction: Permission of ARHU-School of Music department.

An introduction to historical, sociological, and philosophical perspectives of music education.

0101	Robin Giebelhausen	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	PAC 2130A

MUED729 **Doctoral Colloquium in Music Education**

(Perm req)

For students in PhD Progam in Music Education. Meets approximately 4-5 times per semester to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another

0101	Stephanie Prichard	Seats (Total: 10)
	M 1:00pm - 2:00pm	PAC 2130A

MUED780 **Seminar in Music Teacher Education**

(Perm req)

Restriction: Must have doctoral standing in a Music Education program.

Development of knowledge and skills necessary for music teacher educators. Topics include history of and reform movements in music teacher education, recruitment, education and certification of music teachers and inservice programs.

0101	Mike Hewitt	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	PAC 2130A

MUSC School of Music Spring 2024

MUSC001 **MUSP Course Evaluation**

(Perm req)

Contact department for information to register for this course.

MUSC099 **Performance Attendance**

Performance attendance laboratory for undergraduate music majors.

0101	Gilberto Cruz Contact instructor or department for details.	Seats (Total: 200)

MUSC102B **Class Piano**

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

0101	Athanasios Ramadanidis TuTh 11:00am - 12:15pm	Seats (Total: 14) PAC 1123

MUSC103 **Beginning Class Piano II**

(Perm req)

Prerequisite: MUSC102; or permission of ARHU-School of Music department.

Functional piano training for beginners. Development of techniques useful for school and community playing. Basic piano techniques; chord, arpeggio, and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition, and playing by ear. MUSC103 is a continuation of MUSC102; elementary repertoire is begun.

Limited to music majors.

0101	Michael Blum TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1123
0201	Michael Blum MWF 9:00am - 9:50am	Seats (Total: 14) PAC 1123
0301	Johnny Shaw MWF 2:00pm - 2:50pm	Seats (Total: 14) PAC 1123

MUSC106 **Beginning Classical Guitar**

Introduction to classical guitar notation, technique, literature and performance. No previous musical experience required.

0101	Gerard Kunkel MW 11:00am - 11:50am	Seats (Total: 12) PAC 1230

MUSC126 **Vocal Diction: English**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department.

An introduction to the fundamentals of phonetics and sound production as applied to singing English vocal literature through detailed work with IPA, the International Phonetic Alphabet.

0101	Diba Alvi TuTh 11:00am - 11:50am	Seats (Total: 15) PAC 3164	

MUSC128 **Sight Reading For Pianists**

(Perm req)

A course to give the piano major an opportunity to develop proficiency in sight reading at the keyboard.

0101	Athanasios Ramadanidis MW 10:00am - 10:50am	Seats (Total: 10) PAC 2201	

MUSC129A **Ensemble; Chamber Strings**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Contact instructor to make arrangements. For Music majors only.

0101	Laura Colgate **Meets January 30, 2024 - May 9, 2024** TuTh 11:00am - 12:15pm	Seats (Total: 45) PAC 2201	 Lab
0102	Laura Colgate **Meets January 30, 2024 - May 9, 2024** TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	 Lab
0103	Instructor: TBA **Meets January 30, 2024 - May 9, 2024** TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	 Lab
0104	Instructor: TBA **Meets January 30, 2024 - May 9, 2024** TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 2201	 Lab

MUSC129B **Ensemble; Chamber Woodwinds**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Contact instructor to make arrangements. For Music majors only.

0101	Joseph Grimmer, Laura Colgate	Seats (Total: 40)	
	Meets January 30, 2024 - May 9, 2024		
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129C **Ensemble; Chamber Brasses**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For Music majors only.

0101	Laura Colgate, Willie Clark	Seats (Total: 30)	
	Meets January 30, 2024 - May 9, 2024		
	TuTh 11:00am - 12:15pm	PAC 2201	Lab

MUSC129G **Ensemble; Balinese Gamelan**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	I Suadin	Seats (Total: 16)	
	Th 7:00pm - 8:30pm	PAC 1230	Lab

MUSC129K **Ensemble; Japanese Koto**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Yuriko Gandolfo	Seats (Total: 7)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC129L **Ensemble; Advanced Japanese Koto**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Prerequisite: Contact instructor to make arrangements.

0101	Yuriko Gandolfo	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC129P **Ensemble; Percussion**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Jonathan Bisesi	Seats (Total: 15)	
	F 3:30pm - 6:00pm	PAC 2540	Lab
	W 5:00pm - 7:00pm	PAC 2540	Lab

MUSC129Q **Ensemble; Korean Percussion Ensemble**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Sebastian Wang	Seats (Total: 8)	
	W 7:00pm - 8:30pm	PAC 2170	Lab

MUSC129U **Ensemble; Tuba and Euphonium**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter	Seats (Total: 20)	
	W 6:00pm - 6:50pm	PAC 2170	Lab

MUSC130 **What Does Music Mean?**

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

An examination of how music creates meaning in different eras, through studying musical sound, biography, and social history.

0101	William Robin MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) TWS 1100 PAC 3160	Discussion
0102	William Robin MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) TWS 1100 PAC 3160	Discussion
0103	William Robin MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) TWS 1100 PAC 3160	Discussion
0104	William Robin MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) TWS 1100 PAC 3164	Discussion
0105	William Robin MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) TWS 1100 PAC 3164	Discussion
0106	William Robin MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) TWS 1100 PAC 3164	Discussion

MUSC140 **Music Fundamentals I**

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

0101	Sean Klink MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 18) PAC 2168 PAC 1108	Discussion
0201	Sean Klink MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 18) PAC 2168 PAC 1108	Discussion

MUSC151 **Theory of Music II**

(Perm req)

Prerequisite: Minimum grade of C- in MUSC150.

A continuation of MUSC150, including study of more advanced harmonic techniques of the eighteenth century, such as modulation and chromatic harmonies. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Richard Layton MWF 8:00am - 8:50am TuTh 8:25am - 9:15am	Seats (Total: 7) PAC 2160 PAC 2160	 Lab
0102	Richard Layton MWF 8:00am - 8:50am TuTh 9:30am - 10:20am	Seats (Total: 7) PAC 2160 PAC 2160	 Lab
0201	Richard Layton MWF 9:00am - 9:50am TuTh 8:25am - 9:15am	Seats (Total: 7) PAC 2160 PAC 2164	 Lab
0202	Richard Layton MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 7) PAC 2160 PAC 2164	 Lab
0301	Gretchen Horlacher MWF 10:00am - 10:50am TuTh 8:25am - 9:15am	Seats (Total: 7) PAC 2160 PAC 2168	 Lab
0302	Gretchen Horlacher MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 7) PAC 2160 PAC 2168	 Lab

MUSC203 **Intermediate Class Piano II**

(Perm req)

Prerequisite: MUSC202; or must have equivalent piano training.

Advanced keyboard techniques. Continuation of skills introduced in MUSC202. Transposition, modulation and sight reading; methods of teaching functional piano. Development of style in playing accompaniments and in playing for community singing. More advanced repertory.

0101	Johnny Shaw MWF 8:00am - 8:50am	Seats (Total: 10) PAC 1123

MUSC204 **Popular Music in Black America**

Traces black popular music in the U.S. with a special focus on spirituals, ragtime, the blues, early jazz, R&B, Motown, funk, soul, and rap. Examines how these styles have been borrowed by the American music industry.

0101	Matthew Valnes TuTh 2:00pm - 3:15pm	Seats (Total: 25) PAC 2164	

MUSC205 **History of Popular Music, 1950-Present**

A historical survey of rock music (blues, rock, soul, metal, rap, etc.) from circa 1950 to the present, with emphasis on popular music as music and popular music as social history.

0101	Kelsey Klotz MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) MMH 1400 PAC 2168	Discussion
0102	Kelsey Klotz MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) MMH 1400 PAC 2168	Discussion
0103	Kelsey Klotz MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) MMH 1400 PAC 2168	Discussion
0104	Kelsey Klotz MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 PAC 2168	Discussion
0105	Kelsey Klotz MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PAC 2168	Discussion
0106	Kelsey Klotz MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 PAC 2168	Discussion
0107	Kelsey Klotz MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) MMH 1400 PAC 2164	Discussion
0108	Kelsey Klotz MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) MMH 1400 PAC 2164	Discussion
0109	Kelsey Klotz MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) MMH 1400 PAC 2164	Discussion

0110	Kelsey Klotz MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 PAC 2164	Discussion
0111	Kelsey Klotz MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PAC 2164	Discussion
0112	Kelsey Klotz MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PAC 2515C	Discussion

MUSC210 **The Impact of Music on Life**

Credit only granted for: MUET210 or MUSC210. Formerly: MUET210.

Music as a part of culture. Materials drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class and gender on the study of music.

0101	Nicole Powlison MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 16) SKN 0200 PAC 3168	Discussion
0102	Nicole Powlison MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 16) SKN 0200 PAC 3168	Discussion
0103	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 16) SKN 0200 PAC 3168	Discussion
0104	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) SKN 0200 PAC 3168	Discussion
0105	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) SKN 0200 PAC 3168	Discussion
0106	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) SKN 0200 PAC 3168	Discussion

0107	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) SKN 0200 PAC 3164	Discussion
0108	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) SKN 0200 PAC 3164	Discussion
0109	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) SKN 0200 PAC 3164	Discussion
0110	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 16) SKN 0200 ARC 1123	Discussion
0111	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) SKN 0200 ARC 1125	Discussion
0112	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) SKN 0200 ARC 1125	Discussion

MUSC215 **World Popular Musics and Identity**

Credit only granted for: MUET200 or MUSC215. Formerly: MUET200.

Focus on popular musics in different cultures with an emphasis on cross-cultural comparisons and analysis of how musics and identity intersect.

0101	Laura Schnitker MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion
0102	Laura Schnitker MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion
0103	Laura Schnitker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion

0104	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion
0105	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion
0106	Laura Schnitker MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion
0107	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ESJ 2204 PAC 1815	Discussion
0108	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ESJ 2204 PAC 1809	Discussion
0109	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ESJ 2204 PAC 1809	Discussion

MUSC220 **Selected Musical Cultures of the World**

Restriction: Must not be in any of the following programs: (Music (Professional Program); Music Education).

A critical and comparative exploration of musical practices from around the world in their social, political and economic contexts.

Also offered as ANTH298B. For Spring 2020; credit only granted for MUET220, MUSC220, or ANTH298B.

0101	Siv Lie MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion
0102	Siv Lie MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) SQH 1120 PAC 3160	Discussion

0103	Siv Lie MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 15) SQH 1120 PAC 3160	 Discussion
0104	Siv Lie MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion
0105	Siv Lie MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion
0106	Siv Lie MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 15) SQH 1120 PAC 1809	 Discussion

MUSC226 **Vocal Diction: French**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Augmentation of private voice study. Phonetics and diction for singers of French vocal literature.

0101	Diba Alvi TuTh 2:00pm - 2:50pm	Seats (Total: 15) PAC 3164	

MUSC229A **Ensemble; Symphony Orchestra**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely TuTh 3:30pm - 6:30pm	Seats (Total: 70) PAC 1230	 Lab

MUSC229D **Ensemble; Wind Orchestra**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Michael Votta TuTh 3:30pm - 6:30pm	Seats (Total: 75) PAC 2540	Lab

MUSC229E **Ensemble; Wind Ensemble**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Andrea Brown MWF 11:00am - 12:45pm	Seats (Total: 75) PAC 2540	Lab

MUSC229I **Ensemble; Marching Band: Drumline and Auxiliary**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter, Andrea Brown Th 6:30pm - 9:30pm	Seats (Total: 75) PAC 2540
0201	Craig Potter, Andrea Brown Tu 6:30pm - 8:30pm	Seats (Total: 75) PAC 2540

MUSC229J **Ensemble; Jazz Ensemble**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Mark Williams MW 5:30pm - 7:15pm	Seats (Total: 25) PAC 1230	Lab

0201	Tim Powell	Seats (Total: 30)	
	MW 1:00pm - 2:15pm	PAC 1230	Lab
0301	Hart Guonjian-Pettit	Seats (Total: 35)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

MUSC229K **Ensemble; Marching Band Dance Team**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Ann Kennedy	Seats (Total: 40)	
	Su 7:00pm - 9:30pm	Location: TBA	Lab
	TuTh 6:30pm - 9:00pm	Location: TBA	Lab
	F 3:00pm - 5:00pm	Location: TBA	Lab

MUSC229P **Ensemble; Pep Band**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter	Seats (Total: 165)	
	M 6:30pm - 8:30pm	PAC 2540	Lab

MUSC229R **Ensemble; University Orchestra**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely	Seats (Total: 50)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC229U **Ensemble; University Band**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition. Contact instructor to make arrangements.

0101	Craig Potter W 7:30pm - 9:30pm	Seats (Total: 115) PAC 2540	Lab

MUSC229Z **Ensemble; Jazz Combo**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Gerard Kunkel Tu 11:00am - 12:15pm	Seats (Total: 5) Location: TBA	Lab
0201	Thomas Baldwin Tu 5:00pm - 6:30pm	Seats (Total: 5) Location: TBA	Lab
0301	Mark Williams Contact instructor or department for details.	Seats (Total: 10)	
0401	Leigh Pilzer Contact instructor or department for details.	Seats (Total: 10)	

MUSC240 **Elements of Music Composition for Non-Majors**

Prerequisite: MUSC 140, or by permission of instructor. Recommended: Ability to read music on a grand staff (treble and bass clef). Restriction: Must not be in any of the following programs: (Music (Professional Program); Music Education). Credit only granted for: MUSC240 or HONR218M. Formerly: HONR218M.

Emphasizes learning concepts and techniques of music composition through the study of music theory and structure used in both classical and popular music forms. Students will compose music using computer assisted and composition tools. These tools include cloud based digital audio workstations and music notation programs. Compositions will be written in these musical styles but not limited to classical, jazz, and popular. Students will also explore methods of sharing their compositions on various digital platforms.

0101	William Evans Tu 2:00pm - 4:30pm	Seats (Total: 18) PAC 1108	

MUSC251 **Advanced Theory of Music II**

(Perm req)

Prerequisite: Minimum grade of C- in MUSC250.

A continuation of MUSC250, concentrating on late nineteenth-century chromatic harmony and an introduction to twentieth-century melody and harmony. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Thomas DeLio TuTh 8:00am - 9:15am MW 9:00am - 9:50am	Seats (Total: 5) PAC 3164 PAC 3164	 Lab
0102	Thomas DeLio TuTh 8:00am - 9:15am MW 10:00am - 10:50am	Seats (Total: 7) PAC 3164 PAC 3164	 Lab
0201	Daniel Zimmerman TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 7) PAC 3164 PAC 2164	 Lab
0202	Daniel Zimmerman TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 7) PAC 3164 PAC 2164	 Lab
0301	John Heilig TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 7) PAC 3160 PAC 2168	 Lab
0302	John Heilig TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 7) PAC 3160 PAC 2168	 Lab

MUSC269F **Special Topics in Study Abroad II; Exploring Music and Society: Flamenco**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC269M **Special Topics in Study Abroad II; Czech Music**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC328 **Introduction to Chamber Music for Pianists**

(Perm req)

A course to introduce the piano major to chamber music at a moderately difficult level. Class instruction will center on actual rehearsal and coaching geared toward performance, and will be supplemented by further experience in applied instrumental studios.

0101	Jessica McKee	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC329A **Ensemble; University of Maryland Chorale**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Mann	Seats (Total: 80)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC329B **Ensemble; Chamber Singers**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Jason Ferdinand	Seats (Total: 50)	
	MW 3:00pm - 3:50pm	PAC 2201	
	TuTh 3:30pm - 4:20pm	PAC 2201	

MUSC329E **Ensemble; Gospel Choir**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Anne Carswell	Seats (Total: 60)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC329M **Ensemble; Ensemble: Tactus (Tenor & Bass Choir)**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Trevor Tran	Seats (Total: 40)	
	MWF 12:00pm - 12:50pm	PAC 1230	

MUSC329O **Ensemble; Opera Chorus**

(Perm req)

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Nathan Lofton F 3:00pm - 5:00pm	Seats (Total: 30) PAC 2170	Lab

MUSC329W **Ensemble; Treble Choir**

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kenneth Elpus MWF 12:00pm - 12:50pm	Seats (Total: 60) PAC 2201	

MUSC360 **Music in Western Culture Before 1900**

(Perm req)

Prerequisite: MUSC260. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC310 or MUSC360.

Course will be looking at roughly 800 years of Western art music in Europe and America (ca.1100-1900) through the lens of selected "moments"--intersections of historical space and time, observing music as an art form practiced in a public eye, both as a social event and a cultural practice.

0101	Olga Haldey MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion
0102	Olga Haldey MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion
0103	Olga Haldey MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion
0104	Olga Haldey MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 10) PAC 2200 PAC 2160	 Discussion

MUSC369M **Special Topics in Study Abroad III; Masterpieces of Italian Opera**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC379 **Opera Workshop**

(Perm req)

Open to music and non-music majors (by audition). Operatic production and performance, performance techniques and coaching, stage direction, set design, costume design and make-up. Repertory will include smaller operatic works, excerpts or scenes.

0101	Mai-Linh Pham, Corinne Hayes	Seats (Total: 6)
	MW 4:00pm - 6:00pm	PAC 2170

MUSC386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

MUSC388 **Music Internship**

(Perm req)

Pre-professional field work in music.

Prerequisite: permission of instructor.

Contact department for information to register for this course.

MUSC389 **Music Internship Analysis**

(Perm req)

Documentation and evaluation of field work experience.

Contact department for information to register for this course.

MUSC400S **Music Pedagogy**

(Perm req)

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

Contact department for information to register for this course.

MUSC400V **Music Pedagogy**

(Perm req)

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

0101	Diba Alvi	Seats (Total: 25)
	TuTh 9:30am - 10:45am	PAC 2201

MUSC436 **Jazz: Then and Now**

Major styles and influential artists of the past 75 years of jazz.

0101	Kelsey Klotz	Seats (Total: 20)
	MW 4:15pm - 5:30pm	PAC 3160

MUSC438L **Area Studies in Ethnomusicology; Music of Latino/a Communities in the US**

Advanced study of musics in selected parts of the world.

0101	Fernando Rios	Seats (Total: 20)
	MW 9:00am - 10:15am	PAC 3160

MUSC444 **Wind and Percussion Literature**

(Perm req)

Prerequisite: Permission of ARHU-School of Music department. Corequisite: MUSP420 or MUSP419.

Recital program notes and written projects in wind or percussion literature.

Contact department for information to register for this course.

MUSC445 **Survey of the Opera**

Prerequisite: MUSC330 and MUSC331; or students who have taken courses with comparable content may contact the department.

A study of the music, librettos and composers of the standard operas.

0101	Olga Haldey	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PAC 2160

MUSC446 **String Literature**

(Perm req)

Prerequisite: MUSP316; and permission of ARHU-School of Music department.

Recital program notes and written projects in string literature.

Contact department for information to register for this course.

MUSC448 **Selected Topics in Music**

(Perm req)

Contact department for information to register for this course.

MUSC448A **Selected Topics in Music; Accompanying Practicum**

(Perm req)

0101	Mayron Tsong	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC448F **Selected Topics in Music; Style Analysis**

(Perm req)

0101	Anna Nelson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 2168

MUSC448P **Selected Topics in Music; How to Win an Orchestral Audition**

(Perm req)

0101	Robert DiLutis	Seats (Total: 10)	
	M 3:00pm - 4:30pm	Location: TBA	Lab

MUSC448W **Selected Topics in Music; Instrumental Pedagogy**

(Perm req)

Contact department for information to register for this course.

MUSC450 **Musical Form**

(Perm req)

Prerequisite: MUSC251.

A study of the principles of organization in music with emphasis on eighteenth and nineteenth century European music. Reading and analysis of scores exemplifying the musical forms.

0101	Anna Nelson	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	PAC 3160
0201	Anna Nelson	Seats (Total: 18)
	TuTh 9:30am - 10:45am	PAC 3168

MUSC454 **Jazz Improvisation II**

(Perm req)

Prerequisite: MUSC453; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department. Credit only granted for: MUSC346 or MUSC454. Formerly: MUSC346.

Continuation of MUSC453 including scoring and transcription.

0101	Mark Williams	Seats (Total: 5)
	Tu 12:30pm - 3:00pm	PAC 1208

MUSC456 **Jazz Arranging**

(Perm req)

Prerequisite: MUSC455; and permission of ARHU-School of Music department. Credit only granted for: MUSC448N or MUSC456. Formerly: MUSC448N.

A comprehensive approach to jazz arranging. Topics to include chord scale theory, voicing techniques, part and score layout, and formal construction of an arrangement.

0101	Leigh Pilzer	Seats (Total: 12)
	MW 2:30pm - 3:45pm	PAC 2164

MUSC461 **Theory and Analysis of Atonal and Twelve-tone Music**

Prerequisite: MUSC251 and MUSC450; and permission of ARHU-School of Music department. Restriction: Must be in Music Theory and Composition program. Jointly offered with MUSC661. Credit only granted for: MUSC46 1 or MUSC661.

An advanced technical introduction to theory and analysis of atonal and twelve-tone music, with an emphasis on music by Schoenberg, Webern, Bartok, and Stravinsky.

0101	Dora Hanninen	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 3160

MUSC463 **Technology and a Career in Music**

(Perm req)

Recommended: Ability to read music on a grand staff (treble and bass clef). Additional information: No previous experience with technology is required.

A hands-on introduction to technology as it applies to music creation and recording. Digital audio workstations, music notation software, and cloud-based music technology are used to create and manipulate musical examples with an eye toward their practical applications for professional musicians.

0101	Johannes Visser	Seats (Total: 18)
	W 1:00pm - 3:30pm	PAC 1108

MUSC469D **Orchestral Excerpts for String Players; Viola**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

Cross-listed with MUSC669D. Credit only granted for MUSC469D or MUSC669D.

0101	Daniel Foster	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC469F **Orchestral Excerpts for String Players; Bass**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 5)
	M 6:00pm - 7:15pm	Location: TBA

MUSC469V **Orchestral Excerpts for String Players; HARP**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC470 **Harmonic and Contrapuntal Practices of the Twentieth Century**

(Perm req)

Prerequisite: MUSC251; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department.

A theoretical and analytical study of twentieth century materials.

0101	Mark Wilson	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ONLINE

MUSC472 **Music Composition for Music Majors**

Prerequisite: MUSC450 or equivalent; and permission of instructor. Restriction: Registration restricted to music majors who are not majoring in music composition (cannot be in Major code: 1004B). Credit only granted for: MUSC448O or MUSC472. Formerly: MUSC448O.

A course for music majors who wish to develop skills and creative abilities in music composition. Student writing projects will be discussed in class and models of compositional techniques will be studied in literature from diverse styles and style periods.

0101	Robert Gibson	Seats (Total: 8)
	TuTh 2:00pm - 3:15pm	PAC 3168

MUSC481 **Music in the Renaissance**

Survey of western music from 1450 to 1600.

0101	Barbara Haggh-Huglo MW 10:00am - 11:30am	Seats (Total: 15) PAC 2515C

MUSC490 **Conducting**

(Perm req)

Prerequisite: MUSC251.

Vocal and instrumental baton techniques.

0101	Jason Ferdinand MWF 11:00am - 11:50am	Seats (Total: 12) PAC 2201
0201	Andrea Brown MWF 9:00am - 9:50am	Seats (Total: 12) PAC 2540

MUSC491 **Conducting II**

(Perm req)

Prerequisite: MUSC490; or students who have taken courses with comparable content may contact the department.

Baton techniques applied to score reading, rehearsal techniques, tone production, style and interpretation.

Concurrent registration in MUED472.

0101	Jason Ferdinand MW 1:00pm - 1:50pm	Seats (Total: 12) PAC 2201
0201	Andrea Brown MW 1:00pm - 1:50pm	Seats (Total: 12) PAC 2540

MUSC493 **Keyboard Music II**

(Perm req)

Prerequisite: MUSC492; and permission of ARHU-School of Music department.

The history and literature of harpsichord and solo piano music from the Romantic period to the present. Emphasis is placed on those segments of repertory which are encountered in performance and teaching situations at the present time.

0101	Mayron Tsong MW 11:00am - 12:15pm	Seats (Total: 15) PAC 3168

MUSC499 **Independent Studies**

(Perm req)

Independent research on a topic chosen in consultation with the instructor, which may culminate in a paper or appropriate project.

Contact department for information to register for this course.

MUSC602 **Advanced Italian Lyric Diction**

(Perm req)

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in Italian: syllabification, vowels, stressed and unstressed syllables, dipthongs, glides and elisions, single and double consonants with emphasis on current performance practices.

0101	Mai-Linh Pham	Seats (Total: 15)	
	Tu 10:30am - 12:00pm	PAC 1218	

MUSC603 **Advanced German Lyric Diction**

(Perm req)

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in German: single and double consonants, the use of the glottal, the German closed (e) and (o) vowels, the "schwa" and consonant clusters. Mastery of the International Phonetic Alphabet (IPA) as it applies to "Hochdeutsch" will be expected.

0101	Delores Ziegler	Seats (Total: 15)	
	Tu 10:30am - 12:00pm	PAC 2170	

MUSC606 **Opera Repertory II**

(Perm req)

Prerequisite: MUSC605; or permission of instructor. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Continuation of MUSC 605. Advanced vocal coaching of selections from the Italian, French, German and English opera repertory: musical accuracy, language facility; diction clarity; and dramatic interpretation.

0101	Steven Bailey	Seats (Total: 10)	
	Th 10:30am - 12:00pm	PAC 2170	Lab

MUSC608 **Chamber Music Repertory; Chamber Music Repertoire**

(Perm req)

Prerequisite: graduate standing as a major in performance. A study, through performance, of diversified chamber music for standard media.

Contact department for information to register for this course.

MUSC609 **Piano Chamber Music Practicum and Analysis**

(Perm req)

Study of repertoire written for piano in duos or with several instruments, to develop an accompanists advanced performance skills in listening, balance, nuance in dynamics, harmonic motion and phrasing.

0101	Rita Sloan, Laura Colgate	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC612 **Opera Techniques II**

(Perm req)

Prerequisite: Minimum grade of B- in MUSC611. Corequisite: MUSC602. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) ; and permission of Director of Opera required.

Continuation of MUSC 611. Techniques for opera performance: Scene Study II; Movement II; and Mask.

0101	Corinne Hayes, Steven Bailey	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC614 **Opera Techniques IV**

(Perm req)

Prerequisite: Minimum grade of B- in MUSC613. Corequisite: MUSC606 and MUSC604. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) ; and permission of Director of Opera required.

Continuation of MUSC 613. Techniques for opera performance: Scene Study IV and Movement IV.

0101	Steven Bailey, Corinne Hayes	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC629A **Ensemble; Symphony Orchestra**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely, Mark Wakefield TuTh 3:30pm - 6:30pm	Seats (Total: 50) PAC 1230	 Lab

MUSC629C **Ensemble; Wind Ensemble**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Andrea Brown MWF 11:00am - 12:45pm	Seats (Total: 20) PAC 2540	 Lab

MUSC629G **Ensemble; Balinese Gamelan**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	I Suadin Th 7:00pm - 8:30pm	Seats (Total: 4) PAC 1230	 Lab

MUSC629J **Ensemble; Jazz Ensemble**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Mark Williams MW 5:30pm - 7:15pm	Seats (Total: 20) PAC 1230	 Lab
0201	Tim Powell MW 1:00pm - 2:15pm	Seats (Total: 5) PAC 1230	 Lab
0301	Tim Powell M 7:30pm - 9:30pm	Seats (Total: 10) PAC 1230	 Lab

MUSC629K **Ensemble; Japanese Koto**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Kyoko Okamoto Tu 5:30pm - 7:00pm	Seats (Total: 2) PAC 3164	 Lab

MUSC629L **Ensemble; Advanced Japanese Koto**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Prerequisite: Contact instructor to make arrangements.

0101	Yuriko Gandolfo	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3164	Lab

MUSC629O **Ensemble; Tuba and Euphonium**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Craig Potter	Seats (Total: 5)	
	W 6:00pm - 6:50pm	PAC 2170	

MUSC629P **Ensemble; Percussion Ensemble**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Jonathan Bisesi	Seats (Total: 15)	
	F 3:30pm - 6:00pm	PAC 2540	Lab
	W 5:00pm - 7:00pm	PAC 2540	Lab

MUSC629Q **Ensemble; Korean Percussion Ensemble**

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sebastian Wang	Seats (Total: 2)	
	W 7:00pm - 8:30pm	PAC 2170	Lab

MUSC629R **Ensemble; Repertoire Orchestra**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Neely	Seats (Total: 10)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC629U **Ensemble; University Band**

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition. Contact instructor to make arrangements.

0101	Craig Potter W 7:30pm - 9:30pm	Seats (Total: 10) PAC 2540	Lab

MUSC629W **Ensemble; Wind Orchestra**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition. Contact instructor to make arrangements.

0101	Michael Votta TuTh 3:30pm - 6:30pm	Seats (Total: 30) PAC 2540	Lab

MUSC629Z **Ensemble; Jazz Combo**

(Perm req)

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Gerard Kunkel Tu 11:00am - 12:15pm	Seats (Total: 5) Location: TBA	Lab
0201	Thomas Baldwin Tu 5:00pm - 6:30pm	Seats (Total: 5) Location: TBA	Lab
0301	Mark Williams Contact instructor or department for details.	Seats (Total: 5)	
0401	William Dunn Contact instructor or department for details.	Seats (Total: 5)	

MUSC633 **Field Methods in Ethnomusicology**

(Perm req)

Restriction: Permission of ARHU-School of Music department.

Introduction to ethnographic theory and fieldwork methods (participant observation, interviewing, etc.) in ethnomusicology. Students develop and carry out their own fieldwork projects as part of the course.

0101	Siv Lie Tu 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A	

MUSC645 **Seminar in Vocal Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department.

A study of the physiological, psychological and acoustical aspects of the teaching of singing combined with independent study and research in areas of individual interest.

Advanced special students require department authorization.

0101	Lori Sen	Seats (Total: 12)	
	MW 9:30am - 10:45am	PAC 3168	

MUSC648 **Seminar in Music Research**

An introduction to graduate study in the history and literature of music. Bibliography and methodology of systematic and historical musicology.

0101	Matthew Valnes	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	PAC 2515C	

MUSC649A **Ensemble; University of Maryland Chorale**

(Perm req)

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	David Mann	Seats (Total: 10)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab

MUSC649B **Ensemble; Chamber Singers**

(Perm req)

Audition required before permission of department will be granted. Contact instructor to make arrangements.

0101	Jason Ferdinand	Seats (Total: 10)	
	MW 3:00pm - 3:50pm	PAC 2201	
	TuTh 3:30pm - 4:20pm	PAC 2201	

MUSC649E **Ensemble; Gospel Choir**

0101	Anne Carswell	Seats (Total: 10)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC649M **Ensemble; Ensemble: Tactus (Tenor & Bass Choir)**

0101	Kobe Brown	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 1230	

MUSC649O **Ensemble; Opera Chorus**

(Perm req)

0101	Nathan Lofton	Seats (Total: 15)	
	F 3:00pm - 5:00pm	PAC 2170	Lab

MUSC649W **Ensemble; Treble Choir**

0101	Kenneth Elpus	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 2201	

MUSC654 **Jazz Improvisation II**

(Perm req)

Prerequisite: MUSC653. Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC654 or MUSC699Z. Formerly: MUSC699Z.

Continuation of MUSC653, study of jazz improvisation techniques through analysis, transcription and composition.

0101	Mark Williams	Seats (Total: 5)	
	Tu 12:30pm - 3:00pm	PAC 1208	

MUSC656 **Jazz Arranging**

(Perm req)

Prerequisite: MUSC655. Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC656 or MUSC699N. Formerly: MUSC699N.

Comprehensive approach to jazz arranging, including chord scale theory, voicing techniques, part and score layout, and formal construction of an arrangement.

0101	Leigh Pilzer	Seats (Total: 12)	
	MW 2:30pm - 3:45pm	PAC 2164	

MUSC659A **Seminar in Repertoire and Pedagogy; Choral Repertoire and Pedagogy**

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Jason Ferdinand	Seats (Total: 6)	
	M 4:00pm - 6:30pm	PAC 3164	

MUSC659B **Seminar in Repertoire and Pedagogy; Orchestral Repertoire and Pedagogy**

(Perm req)

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	David Neely	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC659C **Seminar in Repertoire and Pedagogy; Wind Repertoire and Pedagogy**

(Perm req)

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Michael Votta	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC661 **Theory and Analysis of Atonal and Twelve-Tone Music**

Prerequisite: MUSC450; or permission of ARHU-School of Music department. Jointly offered with MUSC461. Credit only granted for: MUSC461 or MUSC661.

An introduction to the advanced theoretical literature in atonal and twelve-tone music with an emphasis on analytical applications to music by prominent 20th-century composers.

0101	Dora Hanninen	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 3160

MUSC669D **Orchestral Excerpts for String Players; Viola**

(Perm req)

In-depth study of the orchestral excerpts required for professional orchestra auditions.

Cross-listed with MUSC469D. Credit only granted for MUSC469D or MUSC669D.

0101	Daniel Foster	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669F **Orchestral Excerpts for String Players; BASS**

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 5)
	M 6:00pm - 7:15pm	Location: TBA

MUSC669V **Orchestral Excerpts for String Players; HARP**

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC672 **Masterworks of the 20th Century: 1900-1950**

(Perm req)

Restriction: Permission of ARHU-School of Music department; and must not have completed MUSC470. Credit only granted for: MUSC448M, MUSC470, MUSC672, or MUSC699M. Formerly: MUSC699M.

A comprehensive survey of Western Art-Music of the first half of the 20th Century with a more intensive study and analysis of composers who have had a profound influence in the development of compositional practice in the modern era.

0101	Mark Wilson	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ONLINE

MUSC673 **Style Analysis**

(Perm req)

Prerequisite: MUSC251; and permission of ARHU-School of Music department. Restriction: Must not have completed MUSC448. Credit only granted for: MUSC673, MUSC448F, or MUSC699F. Formerly: MUSC699F.

An analytical study of musical style from the Middle Ages to present through analysis of selected compositions. The principle genres and composers of Medieval, Renaissance, Baroque, Classical, Romantic and 20th century music will be covered.

0101	Anna Nelson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 2168

MUSC679L **Seminar in Ethnomusicology; Music and Leftist Political Movements in the Americas**

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

0101	Fernando Rios	Seats (Total: 12)
	W 3:30pm - 6:00pm	PAC 3110A

MUSC688 **Advanced Orchestration**

Orchestration projects in the styles of Debussy, Ravel, Stravinsky, Schoenberg, Bartok, and others.

0101	Mark Wilson	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	PAC 3168

MUSC699 **Selected Topics in Music**

(Perm req)

Contact department for information to register for this course.

MUSC699A **Selected Topics in Music; Music, Art, and Architecture Pre-1700**

(Perm req)

0101	Barbara Haggh-Huglo M 3:30pm - 6:00pm	Seats (Total: 8) PAC 3110A

MUSC699D **Selected Topics in Music**

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC699V **Selected Topics in Music; Vocal Coaching**

(Perm req)

0101	Mai-Linh Pham Contact instructor or department for details.	Seats (Total: 10)

MUSC699W **Selected Topics in Music; Instrumental Pedagogy**
Contact department for information to register for this course.

MUSC699X **Selected Topics in Music; Minimalist Music**

(Perm req)

0101	William Robin MW 2:00pm - 3:15pm	Seats (Total: 10) PAC 3110A

MUSC758 **Advanced Aural Skills for Conductors**

(Perm req)

Continuation of MUSC757, advanced aural skills necessary for conductors.

0101	Michael Votta W 1:00pm - 2:15pm	Seats (Total: 5) PAC 2126

MUSC799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

MUSC800A **Advanced Seminar in Music Pedagogy**

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Rita Sloan	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC801A **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Mai-Linh Pham	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC801P **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Bradford Gowen	Seats (Total: 10)
	MW 11:00am - 12:15pm	PAC 3164

MUSC801S **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Irina Muresanu	Seats (Total: 13)
	M 6:00pm - 8:30pm	PAC 3160

MUSC801V **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Lori Sen W 3:00pm - 5:30pm	Seats (Total: 10) PAC 2200

MUSC801W **Advanced Seminar in Music Pedagogy**

(Perm req)

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)

0901	Willie Clark Contact instructor or department for details.	Seats (Total: 10)
1001	Justin Drew Contact instructor or department for details.	Seats (Total: 10)
1101	Jonathan Bisesi Contact instructor or department for details.	Seats (Total: 10)
1201	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 5)

MUSC802A **Advanced Seminar in Music Pedagogy III**

Prerequisite: MUSC801. Restriction: Permission of ARHU-School of Music department.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC812 **Doctoral Opera Techniques II**

Prerequisite: MUSC811; and permission of ARHU-School of Music department. Credit only granted for: MUSC612 or MUSC812.

Continuation of MUSC811. Techniques for opera preformance: Scene Study II; Acting II; Movement II: Stage Combat I; and Mask; and methodology seminar.

0101	Steven Bailey, Corinne Hayes	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC814 **Doctoral Opera Techniques IV**

Prerequisite: MUSC813; and permission of ARHU-School of Music department. Credit only granted for: MUSC614 or MUSC814.

Continuation of MUSC813. Techniques for opera performance: Scene Study IV; Dance II; Movement IV; and methodology seminar.

0101	Corinne Hayes, Steven Bailey	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC830C **Doctoral Seminar in Music Literature**

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 8)

MUSC831C **Doctoral Seminar in Music Literature**

(Perm req)

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC831S **Doctoral Seminar in Music Literature**

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0201	Kenneth Slowik TBA	Seats (Total: 15) PAC 2126

MUSC831W **Doctoral Seminar in Music Literature**

Prerequisite: MUSC830; or permission of ARHU-School of Music department.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music. Required of all candidates for the D.M.A. Degree in literature-performance.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 10)

0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
1001	Justin Drew Contact instructor or department for details.	Seats (Total: 10)
1101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

MUSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

MUSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

NACS Neuroscience & Cognitive Science Spring 2024

NACS608 **Neuroscience and Cognitive Science Seminar**

Special seminar topics in Neuroscience and Cognitive Science.

0101	Ricardo Araneda F 10:15am - 11:15am	Seats (Total: 20) BRB 1103

NACS642 **Cognitive Neuroscience**

A study of the fundamental concepts and techniques of cognitive neuroscience. Hands-on experience with three critically different cognitive neuroscience methods: EEG, MEG, and fMRI.

0101	Ellen Lau TuTh 10:00am - 12:00pm	Seats (Total: 15) HBK 0108

NACS644 **Cellular and Molecular Neuroscience**

Prerequisite: NACS641; or permission of instructor.

Overview of insights into the molecular mechanisms underlying the structure and function of the nervous system.

0101	Colenso Speer	Seats (Total: 15)
	MW 10:00am - 12:00pm	BPS 2249

NACS645 **Cognitive Science**

Credit only granted for: NACS645 or NACS728Y. Formerly: NACS728Y.

A study of mental representations and computations. Issues examined include computation, representations, decisions, modularity, evolution, innateness, and reductionism.

0101	Robert Slevc	Seats (Total: 10)
	MW 2:00pm - 3:45pm	HJP 2123

NACS728N **Selected Topics in Neuroscience and Cognitive Science; Advanced Topics in Biology: Diseases of the Nervous System**

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Chan Lin	Seats (Total: 8)
	TuTh 2:00pm - 3:15pm	BPS 0283

NACS728V **Selected Topics in Neuroscience and Cognitive Science; Hearing II Translational Issues**

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Catherine Carr	Seats (Total: 10)
	Tu 11:00am - 3:00pm	BPS 1230

NACS798 **Master's Non-Thesis Research**

Individual research course for NACS non-thesis MS degree

Contact department for information to register for this course.

NACS799 **Master's Thesis Research**

Individualized research course for NACS thesis MS degree

Contact department for information to register for this course.

NACS898 **Pre-Candidacy Research**
Contact department for information to register for this course.

NACS899 **Doctoral Dissertation Research**

(Perm req)

Indivdual instruction course: contact department or instructor to obtain section number

Contact department for information to register for this course.

NAVY Navy Spring 2024

NAVY101 **Sea Power and Maritime Affairs**

Introduces the student to the key themes of naval and maritime history. Curriculum presents an analysis through lectures, reading, and student discussion of the relationship of sea power to American history. Classical concepts and contemporary employment of sea power are examined by viewing historic and current naval and maritime developments.

0101	Tighe Bailey	Seats (Total: 30)
	TuTh 8:00am - 9:15am	ARM 0120

NAVY108 **Naval Science Leadership Lab**

Introduces the student to a variety of instructional sessions and/or activities that will develop the leadership component of the Naval ROTC program. The Naval Science leadership lab may include, but not be limited to, close-order drill, physical fitness training, ceremonial functions, Department of the Navy policy, guest lecturers, general military training (GMT), Anti-Terrorism Force Protection (ATFP), traffic safety, nutrition, stress management, prevention of sexual harassment, and operations security.

0101	John Howrey, Jenna Weiner	Seats (Total: 150)
	TuTh 7:00am - 7:50am	ESJ 1224

NAVY201 **Navigation**

(Perm req)

Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the University of Maryland NROTC program.

Introduces the student to a broad yet thorough education in basic surface ship navigation. Curriculum presents an overview of tools of the modern naval watch officer, and topics include celestial navigation, rules of the nautical road, piloting, practical chartwork, tides, instruments, publications, records, and electronic navigation systems. Instructional sessions and/or activities develop the maritime proficiency core competency of the Naval Reserve Officer Training Corps (NROTC) program.

0101	GABRIELLA ROSELLE	Seats (Total: 30)
	MW 8:00am - 9:15am	ARM 0120

NAVY301 **Naval Ship Systems II (Weapons)**

(Perm req)

Recommended: MATH140, MATH141, and PHYS161. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introduces the student to a comprehensive fundamental understanding of United States naval weaponry. Includes theory and employment of weapons systems, including the processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Radar and sonar systems and major weapon types, including capabilities and limitations. Facets of command, control, and communications as means of weapons system integration. Curriculum presents an in-depth review of surface, sub-surface, aviation, and Marine Corps weapons and platforms.

0101	Tighe Bailey MW 8:00am - 9:15am	Seats (Total: 35) SYM 0215

NAVY401 **Leadership and Ethics**

(Perm req)

Recommended: NAVY200. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Integrates an intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, the Uniform Code of Military Justice, and Navy regulations. The course provides students with a basic understanding of major moral traditions including Relativism, Utilitarianism, Kantian Ethics, Natural Law Theory, Divine Command Theory, and Virtue Ethics.

0101	John Howrey TuTh 9:30am - 10:45am	Seats (Total: 40) ESJ 1309

NAVY402 **Fundamentals of Maneuver Warfare**

Recommended: NAVY100, NAVY101, NAVY200, and NAVY108. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority in enrollment will be given to students in the NROTC program.

A detailed study of the characteristics of modern warfare and their interactions with maneuver warfare doctrine, with a focus on the United States Marine Corps. Throughout the course, there is a strong focus on leadership, as the fundamental purpose of this course is to develop the skills, knowledge, leadership background and mentality necessary for a successful future leadership and service, whether in the military or the civilian sector.

0101	Jenna Weiner TuTh 8:00am - 9:15am	Seats (Total: 25) ESJ 1309

NEUR Neuroscience Spring 2024

NEUR200 **Introduction to Neuroscience**

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: PSYC202. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

0101	Ana Navarro Cebrian TuTh 12:30pm - 1:45pm	Seats (Total: 100) BPS 1243
0201	Ana Navarro Cebrian TuTh 2:00pm - 3:15pm	Seats (Total: 100) BPS 1243

NEUR305 **Neural Systems and Circuits**

Prerequisite: Minimum grade of C- in MATH120 or higher MATH course; and a minimum grade of C- in NEUR200 or BSCI353; or equivalent.

Overview of the fundamental principles underlying the systems and circuits of the human nervous system, with a focus on cognitive processes and how these systems interact. Students will engage in the analysis of case studies, apply their knowledge of the neural circuitry to explain everyday phenomena, hypothesize ways to further investigate the nervous system, and propose how knowledge of neural circuits can be used in human society and the resulting implications.

0101	Amanda Chicoli MWF 2:00pm - 2:50pm	Seats (Total: 75) ESJ 2212

NEUR306 **Cellular and Molecular Neuroscience**

Prerequisite: Earning C- or higher in NEUR200 or BSCI330. Corequisite: Must have completed or be concurrently enrolled in PHYS132 or equivalent course. Credit only granted for: NEUR306 or BSCI353.

Students will gain an appreciation of neuroscience as the nexus of chemistry, physics, and biology. Additionally, they will gain an understanding of how: both individual and networks of neurons function as variable electrical circuits; our nervous systems transduce signals from the outside world and sets-off molecular cascades; the behavior of a neuron can be changed and or remain the same in response to changing variables. Techniques used to study the nervous system at a cellular and molecular level will be discussed.

Credit cannot be applied to the requirements of any Biological Sciences Major.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 40) BPS 1243
0102	Chan Lin MWF 1:00pm - 1:50pm	Seats (Total: 40) BPS 1250

NEUR329 **Instructional Assistance Practicum**

(Perm req)

Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Repeatable to 9 credits. Additional information: Course not acceptable toward major requirements in the Neuroscience. Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Contact department for information to register for this course.

NEUR379 **Special Topics: Research in Neuroscience**

(Perm req)

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Recommended: At least a 3.0 neuroscience track GPA and no records of academic misconduct. Restriction: Permission of Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR379H **Special Topics: Research in Neuroscience**

(Perm req)

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR398H **Neuroscience Honors Seminar**

(Perm req)

This seminar provides an opportunity for the honors students to share their research projects and sharpen their communication skills through presentations, discussions, and peer-review thesis writing. Guest speakers will be invited to provide additional information and insights into various topics in professional development practice, graduate school info and application, etc.

Prerequisite: NEUR200. Corequisite: NEUR379, NEUR479, or equivalent research credit with instructor permission. Repeatable to 4 credits. This seminar provides an opportunity for the honors students to share their research projects and sharpen their communication skills through presentations, discussions, and peer-review thesis writing. Guest speakers will be invited to provide additional information and insights into various topics in professional development practice, graduate school info and application, etc.

0101	Nikolas Francis	Seats (Total: 15)
	Tu 3:30pm - 4:20pm	BPS 1208

NEUR405 **Neuroscience Laboratory**

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: BSCI455. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

Students must pay a $40.00 lab fee.

0101	Hilary Bierman F 10:00am - 11:50am Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab
0102	Hilary Bierman F 10:00am - 11:50am W 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab
0103	Hilary Bierman F 10:00am - 11:50am W 2:00pm - 6:00pm	Seats (Total: 16) ESJ 2212 BPS 0263	 Lab
0104	Hilary Bierman F 10:00am - 11:50am Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 2212 BPS 0257	 Lab

NEUR479 **Advanced Research in Neuroscience**

(Perm req)

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Prerequisite: Complete at least 3 credits of NEUR379 (or equivalent) with the same faculty member as NEUR479 credit. Recommended: Minimum neuroscience track GPA of 3.0. Restriction: Permission of the Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

NEUR479H **Advanced Research in Neuroscience**

(Perm req)

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

NFSC100 **Elements of Nutrition**

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

0101	Hee-Jung Song, Margaret Slavin MW 11:00am - 11:50am W 3:00pm - 3:50pm	Seats (Total: 23) PHY 1412 JMZ 0205	Discussion
0102	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 23) PHY 1412 TLF 1103	Discussion
0103	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am Tu 4:00pm - 4:50pm	Seats (Total: 23) PHY 1412 JMZ 1215	Discussion
0104	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 24) PHY 1412 HBK 0125	Discussion
0105	Hee-Jung Song, Margaret Slavin MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 24) PHY 1412 KEY 0102	Discussion
0106	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 24) PHY 1412 WDS 0104	Discussion
0107	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 24) PHY 1412 KEY 0123	Discussion
0108	Hee-Jung Song, Margaret Slavin MW 11:00am - 11:50am W 12:00pm - 12:50pm *Section 0108 is recommended for majors only.*	Seats (Total: 24) PHY 1412 JMZ 0205	Discussion

0109	Hee-Jung Song, Margaret Slavin MW 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 24) PHY 1412 KEY 0123	Discussion
0110	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 24) PHY 1412 TYD 1108	Discussion
0111	Hee-Jung Song, Margaret Slavin MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 24) PHY 1412 KEY 0125	Discussion
0112	Margaret Slavin, Hee-Jung Song MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 23) PHY 1412 SKN 1115	Discussion

NFSC220 **Diet: Is it a cause or a solution**

If diet is such a straightforward topic, then why and how does this simple matter result in complicated health problems? This course delves deeply into a Big Question at the intersection of diet and health. Diet is a topic that most people know but few people understand. In addition, diet has become one of the most important lenses for looking at a variety of social, economic, and cultural issues. Since the concept of diet is a continuum and has multifaceted aspects, we need to understand it from broad and multidisciplinary perspectives including social, cultural, and economic aspects.

0101	Hee-Jung Song TuTh 3:30pm - 4:45pm	Seats (Total: 60) SKN 0104

NFSC298 **Sports Nutrition Internship Practicum**

This internship allows students to gain hands on experience working in collegiate athletics. Students interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian. Students participate in a weekly 50-minute discussion that is held by two sports nutrition dietitians, and complete 9 hours per week hands on activities at Gossett Football Team House, Xfinity Center, and Varsity Team House.

Prerequisite: Must have completed or be concurrently enrolled in NFSC100; and permission of instructor; or students who have taken courses with comparable content may contact the department. Repeatable to 8 credits if content differs. This internship allows students to gain hands on experience working in collegiate athletics. Students interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian. Students participate in a weekly 50-minute discussion that is held by two sports nutrition dietitians, and complete 9 hours per week hands on activities at Gossett Football Team House, Xfinity Center, and Varsity Team House.

0101	Paula Karamihas, Colleen Carrion W 12:00pm - 12:50pm	Seats (Total: 20) Location: TBA

NFSC315 **Nutrition During the Life Cycle**

Prerequisite: Minimum grade of C- in NFSC100.

A study of how development throughout life, including prenatal development, pregnancy, lactation, adolescence and aging, alter nutrient requirements. Students will apply this knowledge to the dietary needs and food choices of these different groups.

0101	Yuanyuan Li TuTh 2:00pm - 3:15pm	Seats (Total: 101) TMH 0301

NFSC341 **Fermented Food, Feed, and Pharmaceuticals**

Jointly offered with: NFSC641. Credit only granted for: NFSC341 or NFSC641.

Fermentation is a biochemical process that improves and preserves the organoleptic and nutritional values of various food and feed products. In addition, fermentation is a biotechnology tool which cultivates microorganisms or other raw materials into important pharmaceuticals and other industrial products. The objective of this course is to learn how fermented foods and feeds are produced and study the microbial starter cultures used in creating these probiotic-rich and functional foods. Fermentation techniques in animal feed production will be discussed in this course and the influence of these techniques on the nutritional requirements and digestive physiology of animals as well as the nutritive value of the feedstuffs will be studied. The process of production of pharmaceuticals such as antibiotics, enzymes and insulin and their applications will also be studied.

0101	Behrouz Meyssami TuTh 11:00am - 12:15pm	Seats (Total: 15) MMH 3112

NFSC386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of AGNR-Nutrition and Food Science department. Restriction: Junior standing or higher. Formerly: FDSC386 and NUTR386.

Contact department for information to register for this course.

NFSC398 **Seminar**

Presentation and discussion of current literature and research in food science.

FDSC majors only.

0101	Qin Wang F 3:00pm - 3:50pm	Seats (Total: 15) SKN 0101

NFSC399 **Special Problems in Food Science**

(Perm req)

Designed for advanced undergraduates. Specific problems in food science will be assigned.

Contact department for information to register for this course.

NFSC414 **Mechanics of Food Processing**

Prerequisite: PHYS121. Credit only granted for: ENBE414 or NFSC414. Formerly: ENBE414.

Applications in the processing and preservation of foods, of power transmission, hydraulics, electricity, thermodynamics, refrigeration, instruments and controls, materials handling and time and motion analysis.

0101	Rohan Tikekar	Seats (Total: 30)	
	MW 10:00am - 10:50am	TYD 1132	
	F 1:00pm - 2:40pm	SYM 0200	Lab

NFSC430 **Food Microbiology**

Prerequisite: BSCI223; or permission of instructor. Credit only granted for: ANSC430 or NFSC430. Formerly: FDSC430.

A study of microorganisms of major importance to the food industry with emphasis on food-borne outbreaks, public health significance, bioprocessing of foods, disease control, and the microbial spoilage of foods.

0101	Ryan Blaustein	Seats (Total: 40)	
	TuTh 9:30am - 10:45am	MMH 3112	

NFSC431 **Food Quality Control**

Definition and organization of the quality control function in the food industry; preparation of specifications; statistical methods for acceptance sampling; in-plant and processed product inspection. Instrumental and sensory methods for evaluating sensory quality, identity and wholesomeness and their integration into grades and standards of quality. Statistical Process Control (SPC).

0101	Abani Pradhan	Seats (Total: 20)	
	TuTh 11:00am - 11:50am	SKN 0101	
	F 8:30am - 11:00am	MMH 3419	Lab

NFSC434 **Food Microbiology Laboratory**

Prerequisite: Must have completed or be concurrently enrolled in NFSC430. Credit only granted for: NFSC434 or ANSC434. Formerly: FDSC434.

A study of techniques and procedures used in the microbiological examination of foods.

0101	Ryan Blaustein	Seats (Total: 20)	
	TuTh 1:00pm - 4:00pm	MMH 3419	Lab

NFSC436 **Diet and Optimal Human Health**

Prerequisite: NFSC100, BSCI170, and BSCI171 . Jointly offered with: NFSC636. Credit only granted for: NFSC498L, NFSC678L, NFSC436, or NFSC636. Formerly: NFSC498L.

Focuses on maintaining optimal health and preventing diseases in humans with attention to diet. Reviews the main causes (nutritional/behavioral/lifestyle/ environmental/genetic factors) of diseases and nutrient needs, sources, functions and interactions, and deals with the benefits of healthy diets and nutraceutical/pharmaceutical option on human health. The emphasis will be on developing conceptual knowledge, critical thinking and problem solving skills and the application of nutrition in the health promotion.

0101	Seong-Ho Lee	Seats (Total: 20)	
	Tu 2:00pm - 4:30pm	MMH 3112	

NFSC450 **Food and Nutrient Analysis**

Prerequisite: BCHM461 and NFSC100. Formerly: NUTR450.

Methods and practices of the analysis of foods and nutrients. An overview of the principles and basic mechanisms used in many of the analytical procedures commonly used in food and nutrition research. Emphasis will be placed on hands-on development of skills necessary to complete each analytical procedure; and on the accurate and concise description of the methodology and results from their application and on the regulations governing food analysis for nutritional labeling.

0101	Diana Obanda	Seats (Total: 12)	
	W 1:00pm - 1:50pm	MMH 3112	
	W 2:00pm - 5:00pm	MMH 3419	Lab
0102	Diana Obanda	Seats (Total: 12)	
	W 1:00pm - 1:50pm	MMH 3112	
	M 1:00pm - 4:00pm	MMH 3419	Lab

NFSC456 **Medical Nutrition Therapy II**

(Perm req)

Prerequisite: Minimum of C- in NFSC380 and NFSC440; and permission of AGNR-Nutrition and Food Science department.

Modifications of the normal adequate diet to meet human nutritional needs in acute and chronic diseases and metabolic disorders.

0101	Margaret Udahogora	Seats (Total: 17)	
	MW 1:00pm - 2:15pm	KEY 0126	
	M 2:30pm - 5:30pm	JMZ 2120	Lab

0102	Margaret Udahogora MW 1:00pm - 2:15pm W 2:30pm - 5:30pm	Seats (Total: 17) KEY 0126 Location: TBA	Lab

NFSC470 **Community Nutrition**

(Perm req)

Prerequisite: Minimum of C- in NFSC315.

Perspectives underlying the practice of nutrition services in community settings. Assessment of needs, program planning and evaluation. Programs and strategies to meet nutrition needs outside the acute care setting, such as nutrition education and food assistance. National nutrition policy and federal initiatives in nutrition will be examined. Students will be required to travel to local community nutrition sites during the semester.

0101	Nadine Sahyoun MW 11:00am - 11:50am F 10:00am - 11:50am	Seats (Total: 40) TYD 0101 SKN 0104	Discussion

NFSC490 **Special Problems in Nutrition**

(Perm req)

Prerequisite: NFSC440; and permission of AGNR-Nutrition and Food Science department.

Individually selected problems in the area of human nutrition.

Contact department for information to register for this course.

NFSC491 **Professional Issues and Opportunities in Dietetics**

Prerequisite: Minimum of C- in NFSC350 and permission of Nutrition and Food Science Dietetics program. Corequisite: NFSC456. Restriction: Senior standing or higher; and must be in Nutrition and Food Science: Dietetics program.

A capstone course for dietetics majors. Students will integrate knowledge and theory of nutrition, food, management, psychology, and social behaviors necessary to support quality dietetic practice. Working in teams, students will participate in case studies, simulated situations and community projects. Individuals and groups will present cases as well as papers on published research.

0101	Janice Bailey-Goldschmidt MW 8:30am - 10:50am	Seats (Total: 30) JMZ 0103	

NFSC498 **Selected Topics**

(Perm req)

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498A **Selected Topics; Individual Study**

(Perm req)

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498C **Selected Topics; Cheese and Fermented Dairy Products**

Selected current aspects of food.

In this course, in line with the rapidly growing field of fermented foods, students in various fields of science learn the basic knowledge of making cheese and other fermented dairy products. The general composition of milk, the characteristics of its various components, the classification of different cheeses and the microbiology of starter cultures used in cheese production will be discussed. The process of fermentation and the unit operations used in the production of cheese are covered. The production process of other major fermented dairy products such as yogurt, kefir, cultured milk, sour cream, and koumiss will also be studied. The health benefits of these products as related to probiotics microorganisms as well as the organic bioactive agents produced during fermentation beneficial to the gut microbiota will also be discussed.

0101	Behrouz Meyssami	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	SKN 0101

NFSC633 **Food Polymer Science**

Prerequisite: Permission of instructor. Credit only granted for: NFSC633 or NFSC679P. Formerly: NFSC679P.

Food polymers including protein and carbohydrate from food, and their chemical, physical, and functional properties together with their structure-function relationship will be discussed. Food polymer applications in food and non-food areas will be covered. Principles and applications of instrumental methods for polymer characterization will be introduced. An emphasis on nanotechnology and its application to design and characterization food polymers will be included.

0101	Qin Wang	Seats (Total: 15)
	F 10:00am - 12:45pm	SKN 0101

NFSC636 **Advanced Diet and Optimal Human Health**

Prerequisite: NFSC100, BSCI170, and BSCI171 . Jointly offered with: NFSC436. Credit only granted for: NFSC498L, NFSC678L, NFSC436, or NFSC636. Formerly: NFSC678L.

Focuses on maintaining optimal health and preventing diseases in humans with attention to diet. Reviews main causes (nutritional/behavioral/lifestyle/ environmental/genetic factors) of diseases and nutrient needs, sources, functions and interactions, and deals with the benefits of healthy diet and nutraceutical/pharmaceutical option on human health. The emphasis will be on developing conceptual knowledge, critical thinking and problem solving skills and the application of nutrition in the health promotion.

0101	Seong-Ho Lee	Seats (Total: 5)	
	Tu 2:00pm - 4:30pm	MMH 3112	

NFSC641 **Fermented Food, Feed, and Pharmaceuticals**

Fermentation is a biochemical process that improves and preserves the organoleptic and nutritional values of various food and feed products. In addition, fermentation is a biotechnology tool which cultivates microorganisms or other raw materials into important pharmaceuticals and other industrial products. The objective of this course is to learn how fermented foods and feeds are produced and study the microbial starter cultures used in creating these probiotic-rich and functional foods. Popular fermented food products such as wine, beer, yogurt, kefir, kimchi, kombucha, tempeh, miso, furu, and sauerkraut, along with their process specifics including their microbiology, methods of analysis, product composition and some of their potential benefits will be discussed. Fermentation techniques in animal feed production will be discussed in this course and the influence of these techniques on the nutritional requirements and digestive physiology of animals as well as the nutritive value of the feedstuffs will be studied. The process of production of pharmaceuticals such as antibiotics, enzymes and insulin and their applications will also be studied.

0101	Behrouz Meyssami	Seats (Total: 15)	
	TuTh 11:00am - 12:15pm	MMH 3112	

NFSC660 **Research Methods**

Prerequisite: Must have completed one statistics course. Formerly: NUTR 660.

A study of appropriate research methodology and theories including experimental design. Each student is required to develop a specimen research proposal.

0101	David Lei	Seats (Total: 12)	
	MW 2:00pm - 3:15pm	JMZ 0208	

NFSC678A **Selected Topics in Nutrition**

Individual or group study in an area of nutrition.

Contact department for information to register for this course.

NFSC679E **Selected Topics in Food Science**

Individual or group study in an area of food science.

0101	Rohan Tikekar	Seats (Total: 30)	
	MW 10:00am - 10:50am	TYD 1132	
	F 1:00pm - 2:40pm	SYM 0200	Lab

NFSC679M **Selected Topics in Food Science; Food Microbiology**

Individual or group study in an area of food science.

0101	Ryan Blaustein	Seats (Total: 5)
	TuTh 9:30am - 10:45am	ARC 1105

NFSC688 **Seminar in Nutrition and Food Science**

This is a seminar course presentedy by NFSC graduate students and invited speakers in the field of nutrition and food science.

0101	David Lei	Seats (Total: 25)
	W 12:00pm - 12:50pm	SKN 0101

NFSC699 **Problems in Nutrition and Food Science**

(Perm req)

Credit according to time scheduled and magnitude of problem. An experimental program on a topic other than the student's thesis problem will be conducted. Four credits shall be the maximum allowed toward an advanced degree.

Contact department for information to register for this course.

NFSC799 **Master's Thesis Research**

First and second semesters. Credit in proportion to work done and results accomplished. Investigation in some phases of foodservice administration which may form the basis of a thesis. results in the form of a thesis.

Contact department for information to register for this course.

NFSC898 **Pre-Candidacy Research**

First and second semesters. Oral reports on special topics or recently published research in nutrition. Distinguished scientists are invited as guest lecturers. A maximum of three credits allowed for the M.S.

Contact department for information to register for this course.

NFSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

NIAP National Institute of Aeronautics - Va Tech Spring 2024

NIAP788A **Special Topics in National Institue of Aerospace Engineering; Applied Numerical Method**

TV01	Instructor: TBA	Seats (Total: 5)
	Contact instructor or department for details.	

NIAP788B **Special Topics in National Institue of Aerospace Engineering; Applied Linear Controls**

(Perm req)

Contact department for information to register for this course.

NIAV National Institute of Aeronautics - Univ of VA Spring 2024

NIAV788A **Advanced Topics; Engineering Design Optimization**

(Perm req)

Contact department for information to register for this course.

NIAV788B **Advanced Topics; Multibody Mechanical Systems**
Contact department for information to register for this course.

NIAV788W **Advanced Topics; Statistics for Engineers and Scientists**

TV01	Sung Lee	Seats (Total: 20)
	Contact instructor or department for details.	

PEER Health Center Spring 2024

PEER318 **CARE Peer Advocacy**

(Perm req)

Designed to train students to become Peer Advocates who are responsible for providing crisis and short-term support services for victims of sexual assault, relationship violence, stalking, sexual harassment and child abuse.Students will be meeting with clients and providing emotional support and resources (both on and off campus). During weekly classes, students will be trained in trauma-informed crisis intervention procedures that will not only help them assist clients during in- person sessions but will help them support clients via the crisis cell. Students will be expected to maintain the crisis cell (on a shared basis)throughout the semester as well as maintain 10 hours per week in the CARE office. In addition to maintaining the crisis cell and office hours, during the spring semester students will be tasked with working as a team in planning and executing a Take Back the Night event.

0101	Christina Jay	Seats (Total: 15)
	W 4:30pm - 6:00pm	JMZ 0122
	Class time/details on ELMs	ONLINE

PEER319 **CARE to Stop Violence Outreach Peer Program; Care Peer Outreach**

(Perm req)

A two semester, 6-credit course designed to train students in the knowledge, values and skills to build professional relationships and become leaders in community development related to the social justice issue of sexual misconduct with emphasis on the college campus environment.

0101	Grace Boudreau	Seats (Total: 15)
	MW 4:00pm - 5:00pm	JMZ 1120
	Class time/details on ELMs	ONLINE
	Contact department or instructor for details.	

PEER322 **Advanced Peer Education: Preventing Power-Based Violence**

(Perm req)

Prerequisite: Students must complete an interview before enrolling in this course; and minimum grade of B- in PEER312. Restriction: Minimum cumulative GPA of 2.5; and permission of instructor. Credit only granted for: HLTH382 or PEER322. Formerly: HLTH382. Additional information: In addition to the weekly class lectures and experiential learning opportunities facilitating educational outreach on campus, advanced peer educators will meet weekly in groups. These group meetings will provide a space for the students to incorporate class content to enhance the design, development, and evaluation of a sexual assault prevention or awareness program for the University of Maryland campus community. Coordinators will meet with student groups to facilitate and supervise this process.

PEER 322 is a three-credit, interdisciplinary course building upon the sexual assault, relationship violence, stalking, bystander intervention, and wellness knowledge gained during PEER 312. Students will gain a fundamental understanding of program planning basics through a series of assignments where they theoretically plan their own prevention or awareness program for the University of Maryland campus community. Students who become a Peer Leader during year two may have the opportunity to implement this program on campus. This course also provides advanced training in the skills necessary to serve as an effective Peer Educator under the University Health Center. Peer Educators will continue to provide outreach and education to the campus community through various outreach events, workshops, and more.

0101	Lucy Hebner	Seats (Total: 15)
	M 4:00pm - 5:00pm	KEY 0117
	W 4:00pm - 6:00pm	KEY 0117

PERS Persian Spring 2024

PERS102 Elementary Persian II

Prerequisite: PERS101; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Continuation of PERS101 with emphasis on the use of formal language, vocabulary building, and reading.

0101	Bahareh Jalehmahmoudi	Seats (Total: 15)
	MWF 10:00am - 10:50am	HJP 2114
	Class time/details on ELMs	ONLINE

PERS202 Intermediate Persian II

Prerequisite: PERS201; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Further development of speaking, writing, listening and cultural knowledge, with special focus on culture.

0101	Bahareh Jalehmahmoudi MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) HJP 2114 ONLINE

PERS251 **Modern Iran**

Cross-listed with: HIST219X. Credit only granted for: PERS251 or HIST219X.

General sociopolitical introduction to modern Iran from establishment of the Qajar dynasty in the late 18th century to the present day. Taught in English.

0101	Marjan Moosavi TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 0125

PERS302 **Advanced Persian II**

Prerequisite: PERS301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be native/fluent speaker of Persian.

Further development of speaking, reading, writing, listening and cultural knowledge, with special focus on reading, in a variety of literary genres.

0101	Nahal Akbari-Saneh TuTh 9:30am - 10:45am	Seats (Total: 10) HJP 2114

PERS312 **Contemporary Iranian Culture**

Prerequisite: PERS301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be native/fluent speaker of Persian.

Study of the culture of contemporary Iran (post-evolution) with focus on the contemporary social, political, literary and artistic life in Iran. Taught in Persian.

0101	Manizhe Galledari TuTh 11:00am - 12:15pm	Seats (Total: 10) HJP 2114

PERS385 **Theatre and Dance in Iran and Afghanistan**

Repeatable to 3 credits if content differs. Cross-listed with: TDPS358A, THET328W. Credit only granted for: TDPS358A, THET328W, PERS398A, or PERS385. Formerly: PERS398A.

Students will learn about stories, plays, and movements in Iran and Afghanistan from past to present. Through watching performances, readings, and discussions, we explore the relationship between storytelling, body, space, and power in forming and performing identity and life experiences. Looking at case studies from traditional, popular, and western style dance and theater are an exciting part of the course. Note: This course requires no prior knowledge of Persian culture or dance and theatre studies on the part of the students.

0101	Marjan Moosavi TuTh 3:30pm - 4:45pm	Seats (Total: 25) JMZ 1224

PERS386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor.

Contact department for information to register for this course.

PERS399 **Directed Study in Persian**

(Perm req)

Directed study with faculty supervision.

Contact department for information to register for this course.

PERS498A **Special Topics in Persian Studies; Advanced Literacy Skills in Persian**

(Perm req)

Topic and language to be announced when offered.

Taught in Persian.

0101	Manizhe Galledari M 9:00am - 11:45am	Seats (Total: 5) HJP 3115

PERS498D **Special Topics in Persian Studies; Political, Economic, and Social Thought in Today's Iran**

(Perm req)

Topic and language to be announced when offered.

Taught in Persian.

0101	Ali Abasi Tu 9:00am - 11:45am	Seats (Total: 5) HJP 3115

PERS498E **Special Topics in Persian Studies; Translation of Contemporary Persian Texts**

(Perm req)

Topic and language to be announced when offered.

Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 5)
	F 9:00am - 11:45am	HJP 3115

PERS498G **Special Topics in Persian Studies; Masterpieces of Modern Persian Literature**

Topic and language to be announced when offered.

The genesis of Iran s first generation of Modern writers was one of the main consequences of Iran s Constitutional Revolution (1905-1907), and the effect of publication of numerous newspapers and journals. Being acquainted with modern literary techniques, modern approaches and attitudes in prose and poetry created a fertile ground for flourishing of the most notable writers and poets with social and political concernsin Iran. The Course will cast a light on some of the most renowned Persian contemporary writers and poets. The assessment of the works, careers andstyles of several writers and poets in modern Persian literature is the main objective of this class. Also, it aims to develop student's abilities to research and present oral and written works effectively andimprove their analytical skills and interactive capacities.

0101	Mohammad Bazargan	Seats (Total: 14)
	Th 5:00pm - 7:30pm	JMZ 1123

PERS498M **Special Topics in Persian Studies; Sex, Gender, and Sexuality in the Islamic World**

Topic and language to be announced when offered.

Cross-listed with CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, and WGSS698D. Credit granted for CMLT679D, HIST419C, PERS498M, PERS689M, RELS429B, WGSS498D, or WGSS698D.

0101	Matthew Miller	Seats (Total: 14)
	Th 12:30pm - 3:15pm	JMZ 1123

PERS498P **Special Topics in Persian Studies; Performing Arts of Iran**

(Perm req)

Topic and language to be announced when offered.

Taught in Persian.

0101	Marjan Moosavi	Seats (Total: 5)
	Th 9:00am - 11:45am	HJP 3115

PERS689M **Special Topics in Persian Studies; Sex, Gender, and Sexuality in the Islamic World**

In-depth analysis of a particular aspect of Persian studies. In Persian.

Cross-listed with CMLT679D, HIST419C, PERS498M, RELS429B, WGSS498D, and WGSS698D. Credit granted for CMLT679D, HIST419C, PERS498M, PERS689M, RELS429B, WGSS498D, or WGSS698D.

0101	Matthew Miller Th 12:30pm - 3:15pm	Seats (Total: 14) JMZ 1123	

PHIL Philosophy Spring 2024

PHIL100 **Introduction to Philosophy**

An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

0101	Dan Moller MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 ASY 3217	Discussion
0102	Dan Moller MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) SHM 2102 KNI 1206	Discussion
0103	Dan Moller MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 SQH 1123	Discussion
0104	Dan Moller MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 EDU 2101	Discussion
0105	Dan Moller MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) SHM 2102 KNI 1105	Discussion
0106	Dan Moller MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 LEF 1171	Discussion

PHIL140 **Contemporary Moral Issues**

The uses of philosophical analysis in thinking clearly about such widely debated moral issues as abortion, euthanasia, homosexuality, pornography, reverse discrimination, the death penalty, business ethics, sexual equality, and economic justice.

0101	Hallie Liberto MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) JMZ 0220 PLS 1113	Discussion

0102	Hallie Liberto MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) JMZ 0220 PLS 1113	Discussion
0103	Hallie Liberto MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) JMZ 0220 KNI 1206	Discussion
0104	Hallie Liberto MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) JMZ 0220 HBK 0105	Discussion
0105	Hallie Liberto MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) JMZ 0220 HBK 0105	Discussion
0106	Hallie Liberto MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) JMZ 0220 HBK 1112	Discussion

PHIL202 **Know Thyself: Wisdom Through Cognitive Science**

Credit only granted for: PHIL209N or PHIL202. Formerly: PHIL209N.

How do we improve our decision making? Cognitive science demonstrates that self-knowledge isn't as easy as we think, and that there are numerous biases and fallacies that impact our decision-making in ways that are hard for us to be aware of. In this course you will learn what some of these are and how they have been discovered, and you will explore potential strategies for avoiding these fallacies and for making wiser choices.

0101	Peter Carruthers MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TLF 0103	Discussion
0102	Peter Carruthers MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 TLF 0103	Discussion
0103	Peter Carruthers MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) SHM 2102 EDU 3236	Discussion

0104	Peter Carruthers MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 HBK 1112	Discussion
0105	Peter Carruthers MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SHM 2102 HBK 1112	Discussion
0106	Peter Carruthers MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) SHM 2102 KNI 1105	Discussion
0107	Peter Carruthers MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) SHM 2102 TLF 0110	Discussion
0108	Peter Carruthers MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SHM 2102 TLF 0110	Discussion
0109	Peter Carruthers MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) SHM 2102 KNI 1103	Discussion

PHIL203 **The Rights and Wrongs of Killing People**

Credit only granted for: PHIL209J or PHIL203. Formerly: PHIL209J.

Virtually everyone thinks it's permissible to kill people only in special circumstances. But why is killing usually wrong? Is it ever acceptable to kill an innocent human being intentionally? This course raises these and related questions and examines cases such as terrorism, suicide, abortion, euthanasia, the death penalty, war. Except for a brief discussion of animals, all the controversies considered deal with killing and causing death to human beings.

0101	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SKN 0200 SQH 1111	Discussion
0102	Daniel Blair MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) SKN 0200 BPS 1232	Discussion

0103	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SKN 0200 SYM 0209	Discussion
0104	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SKN 0200 JMZ 1120	Discussion
0105	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SKN 0200 LEF 1222	Discussion
0106	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) SKN 0200 EDU 3236	Discussion
0107	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) SKN 0200 SQH 1123	Discussion
0108	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) SKN 0200 SQH 1123	Discussion
0109	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) SKN 0200 SQH 1121	Discussion

PHIL205 **Are Sports Ethical?**

Credit only granted for: PHIL205, PHIL209G, or HONR229E. Formerly: HONR229E.

Things happen routinely in sports that would seem morally unacceptable in other context: violence between the participants, attempts to trick the referee, fans hoping that some players would do embarrassingly badly, spectators feeling anger towards whole nations. Nonetheless, all of this may seem reasonable and even justifiable within a sporting context. This course will investigate the ethical structure of sports, and what it tells us about the ethics of everyday life. Philosophy will provide the primary disciplinary context, but we will also think about sociological, legal and anthropological perspectives on sports. Issues will include the nature of sportsmanship, what types of violence in sports are acceptable, drug use in sports, what it means to be a fan (for example, asking why loyalty to your team is valuable) and how our view of sports interacts with our view of nations. By the end of the course you should have gained familiarity with a variety of ethical concepts and a sensitivity to the ethical issues in sports. You should also find that by thinking about morality in the context of sports, you will look at larger ethical issues in new ways.

0101	Harjit Bhogal MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) SQH 1120 EDU 1315	Discussion
0102	Harjit Bhogal MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SQH 1120 LEF 1220	Discussion
0103	Harjit Bhogal MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) SQH 1120 SKN 1112	Discussion

PHIL211 **AI & ETHICS**

Credit only granted for: PHIL209D or PHIL211. Formerly: PHIL209D.

An introduction to a major subfield of contemporary Philosophy, namely applied ethics, and the experience of using some major tools in the practice of philosophy more generally, namely, the construction and formal evaluation of arguments, conceptual analysis, the use of thought experiments, and clear, direct and persuasive writing. Learning how to execute the latter will involve an intense iterative process. The substantive focus of the course will be the ethical evaluation of Artificial Intelligence (AI) in some of its current and potentially future incarnations. We'll examine algorithmic opacity, algorithmic bias and decision-making, autonomous weapons systems, human-robot interaction, and artificial moral agents, in order to uncover what, if any, ethical issues they give rise to.

0101	Susan Dwyer MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) SQH 1120 HBK 0125	Discussion
0102	Susan Dwyer MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) SQH 1120 HBK 0125	Discussion
0103	Susan Dwyer MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 20) SQH 1120 EDU 2102	Discussion

PHIL220 **Bioethics: Regulating Right and Wrong**

Credit only granted for: PHIL209A or PHIL220. Formerly: PHIL209A.

Bioethicists formulate ethical guidelines. They answer questions such as: When life-saving health resources are scarce, who should get them? Should we increase supply of one such resource, kidneys, by buying them from living "donors"? If drug trials in developing countries benefit patients who consent to participate, are the trials ethical, even if the same research would be forbidden in the US? If a sick person aims to hasten her death, how, if at all, might her doctor permissibly help her? In this course, students construct and defend ethical rules in four domains: research ethics, allocation of scarce resources, markets in organs, and physician-assisted dying.

0101	Shen Pan MW 10:00am - 11:15am	Seats (Total: 30) SQH 1105	

PHIL236 **Philosophy of Religion**

Cross-listed with: RELS236. Credit only granted for: PHIL236 or RELS236.

A philosophical study of some of the main problems of religious thought: the nature of religious experience, the justification of religious belief, the conflicting claims of religion and science, and the relation between religion and morality.

0101	Cody Gomez Tu 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE	

PHIL245 **Political and Social Philosophy I**

A critical examination of such classical political theories as those of Plato, Hobbes, Locke, Rousseau, Mill, Marx, and such contemporary theories as those of Hayek, Rawls, and recent Marxist thinkers.

0101	Antong Liu TuTh 3:30pm - 4:20pm F 10:00am - 10:50am	Seats (Total: 20) TWS 0310 LEF 1171	Discussion
0102	Antong Liu TuTh 3:30pm - 4:20pm F 11:00am - 11:50am	Seats (Total: 20) TWS 0310 LEF 1222	Discussion
0103	Antong Liu TuTh 3:30pm - 4:20pm F 1:00pm - 1:50pm	Seats (Total: 20) TWS 0310 LEF 0135	Discussion

PHIL269M **Special Topics in Study Abroad II; Moral Philosophy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Y **Special Topics in Study Abroad II; Truth and Reality**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Z **Special Topics in Study Abroad II; Introduction to Continental Philosophy**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL271 **Symbolic Logic**

Recommended: PHIL170.

This course provides students with a thorough treatment of the basic concepts and techniques of modern symbolic logic, through classical first-order logic with identity. We will concentrate on the construction of natural deduction proofs and on the evaluation of logical statements in semantic models. Along the way, we will study some of the concepts from set theory (sets, functions, relations) used in the definition of semantic models for logical systems. We may also introduce some alternative, or non-classical logics. Although the subject of symbolic logic was developed by mathematicians and philosophers for their own special purposes (which we will discuss), logical concepts and techniques have found applications in a variety of disciplines, including computer science, economics, law, linguistics, and psychology. We may also consider some of these applications.

0101	Fabrizio Cariani	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	SQH 1123

PHIL309D **Philosophical Problems; Philosophy of Negative Emotions**

A focused study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to to generate critical analyses or proposed resolutions of issues in the contemporary philosophical literature.

Is anger simply a cognitive distortion we should eliminate from our minds? Is it better understood as a response to injustice, capable of motivating social change? Is shame a morally effective form of punishment? Is it rational for grief to diminish after a short time despite the persistence of loss? The course will examine answers to these and other questions about the philosophical nature of anger, shame, fear, anxiety,and grief. A theme of the course will be the good of these so-called negative emotions and the extent to which they are ethically and politically significant. Readings will draw on historical and contemporary philosophy as well as psychology and literary art.

0101	Jeremiah Tillman	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SQH 1123

PHIL318B **Studies in Epistemology/Metaphysics; The Wisdom of Crowds**

Problems, issues, and points of view in epistemology or metaphysics.

An investigation of how the ability to obtain knowledge can be enhanced or distorted by different kinds of social structures. We will look at classic work about how different kinds of interactions within groups create new ways of knowing or being deceived. We'll also look at recent work on the nature of disagreement, polarization, and the use of networks in scientific research.

0101	Daniel Blair	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TWS 0221

PHIL320 **Knowing Oneself and Knowing the World: Early Modern Philosophy from Descartes to Kant**

Prerequisite: 6 credits in PHIL courses; or permission of instructor.

A study of major philosophical issues of the 16th, 17th, and 18th centuries through an examination of such philosophers as Descartes, Spinoza, Leibniz, Cavendish, Locke, Berkeley, Hume and Kant

0101	Benjamin Fan	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0201

PHIL360 **Philosophy of Language**

Prerequisite: LING311; or 2 courses in PHIL and (PHIL170 or PHIL370); or permission of ARHU-Philosophy department. Cross-listed with: LING350. Credit only granted for: LING350 or PHIL360.

The nature and function of language and other forms of symbolism from a philosophical perspective.

0101	Alexander Williams	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 0105

PHIL362 **Theory of Knowledge**

Prerequisite: 6 credits in PHIL courses; and PHIL170. Formerly: PHIL462.

Some central topics in the theory of knowledge, such as perception, memory, knowledge, and belief, skepticism, other minds, truth, and the problems of induction.

0101	Jonathan Kendrick	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	LEF 1201

PHIL366 **Philosophy of Mind**

Prerequisite: 6 credits in PHIL courses.

An introduction to core issues in the philosophy of mind, focusing especially on the basic metaphysical question of dualism versus physicalism.

0101	Shen Pan	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TWS 0205

PHIL386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-Philosophy department; and junior standing or higher.

Consult Director of Undergraduate Studies: C. Manekin. Prerequisites: 12 credit hours of philosophy and 3.0 GPA. Carries no credit toward philosophy major.

Contact department for information to register for this course.

PHIL408L **Topics in Contemporary Philosophy; Philosophy of Childhood**

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

0101	Elizabeth Schechter	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	PLS 1113

PHIL408P **Topics in Contemporary Philosophy; Philosophy of Psychiatry**

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

0101	Elizabeth Schechter	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0207

PHIL408Q **Topics in Contemporary Philosophy; Fairness**

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

0101	Eric Pacuit	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	PLS 1117

PHIL409J **Advanced Studies in Contemporary Philosophy; Social Ontology**

An in-depth study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to grapple with the primary literature in order to generate sustained critical analyses or proposed resolutions of issues under active consideration in contemporary philosophy.

0101	Nicholas Laskowski	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 1112

PHIL409X **Advanced Studies in Contemporary Philosophy; Quantum Mechanics and Metaphysics**

An in-depth study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to grapple with the primary literature in order to generate sustained critical analyses or proposed resolutions of issues under active consideration in contemporary philosophy.

An introduction to the basic mathematics and concepts needed to see why quantum mechanics raises philosophical issues, and a discussion of some questions about quantum entanglement. A basic understanding of the issues calls for mathematics, though less than you might expect. There are no specific mathematical prerequisites, but a taste for abstraction will be essential. Ideally, students should be comfortable at least with the material in MATH107 (Mathematical modeling and probability).

0101	Allen Stairs W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 25) TWS 0201 ONLINE

PHIL414 **The Philosophy of Aristotle**

Prerequisite: 6 credits in PHIL courses.

A critical study of selected portions of Aristotle's writings.

0101	Rachel Singpurwalla TuTh 11:00am - 12:15pm	Seats (Total: 25) TWS 0234

PHIL418B **Topics in Epistemology/Metaphysics; Conditionals and Conditional Reasoning**

An intensive examination of contemporary problems and issues in epistemology or metaphysics. Source material will be selected from recent books and articles.

0101	Paolo Santorio TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 0205

PHIL428C **Topics in the History of Philosophy; Confucius and Socrates**

0101	Antong Liu TuTh 12:30pm - 1:45pm	Seats (Total: 30) SQH 1117

PHIL446 **Law, Morality, and War**

An exploration of fundamental moral and legal issues concerning war.

0101	Zhaoqi Hu MW 9:00am - 10:15am	Seats (Total: 30) LEF 1220

PHIL469Y **Study Abroad Special Topics IV; Philosophy of Science II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL470 **Logical Theory II: Incompleteness and Undecidability**

Prerequisite: PHIL370; or permission of instructor.

Introduces the formal theory of computation, and then presents the the central limitative results of modern first-order logic: Church's undecidability theorem and Godel's first and second incompleteness theorems. The primary focus of the course is a thorough technical study of these fundamental results, but we will also discuss some of the philosophical issues they raise. Further topics may include second-order logic.

0101	Eric Pacuit	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	SQH 2120

PHIL498F **Topical Investigations; Topical Investigation**

(Perm req)

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498G **Topical Investigations; Topical Investigation**

(Perm req)

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498Z **Topical Investigations; Realism and Idealism**

Contact department for information to register for this course.

PHIL640 **Value Theory**

A basic course in value theory for beginning graduate students, covering a number of topics in depth, to provide a springboard for further study and research in the area.

0101	Dan Moller	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	SKN 1116

PHIL788G **Research in Philosophy; Research in Philosophy**

(Perm req)

Contact department for information to register for this course.

PHIL788I **Research in Philosophy; Research in Philosophy**

(Perm req)

Contact department for information to register for this course.

PHIL799 **Master's Thesis Research; Masters Thesis Research**

Contact department for information to register for this course.

PHIL808J **Seminar in the Problems of Philosophy**

0101	Harjit Bhogal	Seats (Total: 15)
	W 2:30pm - 5:00pm	SKN 1116

PHIL808K **Seminar in the Problems of Philosophy; Recent Work in the Philosophy of Language**

0101	Paolo Santorio	Seats (Total: 15)
	Th 2:00pm - 4:30pm	SKN 1116

PHIL879 **Seminar in Philosophy and Cognitive Studies; Human Nature**

0101	Peter Carruthers M 3:00pm - 5:30pm	Seats (Total: 15) SKN 1116

PHIL888 **Professional Mentoring for Doctoral Students**

Work with a faculty advisor on various aspects of professional development.

Contact department for information to register for this course.

PHIL889 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Work with a faculty advisor to develop and improve pedagogical skills.

Contact department for information to register for this course.

PHIL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PHIL899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PHPE Philosophy, Politics, and Economics Spring 2024

PHPE308A **Special Topics in Philosophy, Politics, and Economics; The Philosophy of Aristotle**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Rachel Singpurwalla TuTh 11:00am - 12:15pm	Seats (Total: 25) TWS 0234

PHPE308B **Special Topics in Philosophy, Politics, and Economics; The Wisdom of Crowds**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Daniel Blair TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0221

PHPE308D **Special Topics in Philosophy, Politics, and Economics; Fairness in Machine Learning**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Eric Pacuit TuTh 12:30pm - 1:45pm	Seats (Total: 30) PLS 1117

PHPE308I **Special Topics in Philosophy, Politics, and Economics; Confucius and Socrates**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Antong Liu TuTh 12:30pm - 1:45pm	Seats (Total: 30) SQH 1117

PHPE308L **Special Topics in Philosophy, Politics, and Economics; Philosophy of Childhood**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Elizabeth Schechter TuTh 12:30pm - 1:45pm	Seats (Total: 30) PLS 1113

PHPE386 **Experiential Learning Practicum in Philosophy, Politics, and Economics**

(Perm req)

Restriction: Junior standing or higher.

For students who wish to gain experience working in research outside the classroom. Pending approval of the department, students may work at a professional site or remotely under professional supervision - your primary supervisor must be a professional in the field. Beyond working at a professional site or under professional supervision, students will have to complete further assignments to receive a passing grade in the course. Students may take PHPE386 for three-six credits, but only three credits will count towards the major requirements. PHPE386 is only open to those with junior standing or above.

Contact department for information to register for this course.

PHPE401 **Social Philosophy and Political Economy**

Examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates in 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

Credit only granted for PHPE401 or GVPT449E.

0101	Antong Liu TuTh 9:30am - 10:45am	Seats (Total: 30) LEF 2166

PHPE402 **Senior Capstone in Philosophy, Politics, and Economics**

Restriction: Must be in the Philosophy, Politics, and Economics major; and must have senior standing.

Senior capstone course for the Philosophy, Politics, and Economics major. The exact content of the course will be determined by the instructor who teaches it. The purpose of the course is to pursue sustained inquiry on a narrow philosophical topic, using the tools and methods from economics and political science to help analyze the topic. The course ends with a substantial research paper, where the student should demonstrate an ability to use the tools of philosophy, political science, and economics in his or her analysis.

0101	Susan Dwyer	Seats (Total: 30)
	MW 3:00pm - 4:15pm	KNI 1105

PHPE408Z **Advanced Topics in Philosophy, Politics, and Economics; Social Ontology**

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Nicholas Laskowski	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 1112

PHSC Public Health Science Spring 2024

PHSC388D **Special Topics in Public Health Science; Moving Fearlessly Forward: The Pursuit of Career Success in Public Health Science**

Will differ by specific course offering.

This course will illustrate and investigate the relationship between experiential learning and career readiness in public health. Primarily through listening to relevant podcasts, students will reflect on their skill development, think critically about industry trends, and identify best practices for success in the public health workforce. Students will bridge the gap between their current skills and their career aspirations through strategic planning of curricular and co-curricular engagement. Student learning will culminate in the creation of a career roadmap- an individualized action plan to move fearlessly forward into career success.

0101	Shannon Edward	Seats (Total: 30)
	Meets January 24, 2024 - March 13, 2024	
	W 10:00am - 10:50am	SPH 0307
	Class time/details on ELMs	ONLINE

PHSC388F **Special Topics in Public Health Science; The Public Health Lessons of the COVID-19 Pandemic: A Retrospective Examination**

Will differ by specific course offering.

The long-term social impacts of the COVID-19 pandemic are only now beginning to become evident, especially with regards to public health policy and practices. This course will provide a retrospective analysis of the pandemic from a variety of social and public health perspectives with the aim of discussing what went right, what went wrong, and how these perspectives may shape future pandemic preparedness and public health policies and practices. Students will be introduced to a variety of topics related to the pandemic to gain the proper background and context for further discussion, such as the history of previous pandemics, the biology of SARS-CoV-2 and the major players in governmental policy and decision-making processes. Students will then examine the major policy and health-practice related decisions made during the pandemic and discuss the positive and negative impacts of these decisions from a variety of perspectives, including their own lived experience. Using the knowledge and perspectives gained during these discussions, students will draft their own pandemic policy and action plan in response to a hypothetical future pandemic.

0101	Jennifer German TuTh 9:30am - 10:45am	Seats (Total: 24) SPH 0227

PHSC389 **Independent Research Study in Public Health Science**

(Perm req)

This independent research-based experience will provide the opportunity for students to work with individual research mentors in the area of Public Health Science. Students must identify a mentor prior to obtaining departmental permission.

0101	Shannon Edward Contact instructor or department for details. *Restricted to students in Public Health Science (12140) major at College Park only.*	Seats (Total: 30)
ESG1	Shannon Edward Contact instructor or department for details. *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 15)

PHSC399 **Public Health Science Internship**

(Perm req)

The Public Health Science internship will enable students to gain practical experience under conditions conducive to academic, research and professional development. The internship is a time-limited, supervised period of public health professional experience carried out in a related professional organization or research setting.

0101	Shannon Edward Contact instructor or department for details. *Restricted to College Park students in Public Health Science (12140) major.*	Seats (Total: 30)
ESG1	Shannon Edward Contact instructor or department for details. *Restricted to Shady Grove students in the Public Health Science major.*	Seats (Total: 20)

PHSC415 **Essentials of Public Health Biology: The Cell, The Individual, and Disease**

Prerequisite: Minimum grade of C- in BSCI202. Recommended: BSCI223. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC415, SPHL415 or SPHL498J. Formerly: SPHL415 and SPHL498J.

Presents the basic scientific and biomedical concepts of modern public health problems and explores in depth mechanisms and models of the major categories of disease. The biologic principles presented are foundations to public health disease prevention, control, or management programs.

0101	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 36) SPH 1312 ONLINE SPH 1301	 Discussion
	Restricted to College Park students in the Public Health Science major (code 12140).		
0102	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 36) SPH 1312 ONLINE SPH 1301	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0103	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 36) SPH 1312 ONLINE SPH 1301	 Discussion
	Restricted to College Park Students in the Public Health Science major (code 12140).		
0104	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 2:00pm - 2:50pm	Seats (Total: 36) SPH 1312 ONLINE SPH 1301	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		
0105	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 3:00pm - 3:50pm	Seats (Total: 36) SPH 1312 ONLINE SPH 1301	 Discussion
	Restricted to College Park students in the Public Health Science major (code: 12140).		

PHSC450 **Addressing Social and Structural Inequities Through Public Health**

Prerequisite: Minimum grade of C- in MIEH300; and 1 course with a minimum grade of C- from either SPHL100 or PHSC300.

A focus on addressing social and structural inequities within race, gender, disability, and class through various perspectives in the field of public health. Students explore the causes, challenges, consequences, and extent these injustices have on health disparities from local, national, and global perspectives. Students view these inequities through the lens of the affected populations, and work interactively and collaboratively to interpret, design, and evaluate public health interventions and approaches to address key health disparities within specific communities. The aim of this course is to help students define appropriate research and address structural inequities with innovative approaches through the professional practice of public health.

0102	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm Th 9:30am - 10:20am	ESJ 0202 SPH 0305	Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm Th 11:00am - 11:50am	ESJ 0202 SPH 0305	Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	ESJ 0202 SPH 0305	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm Th 2:00pm - 2:50pm	ESJ 0202 SPH 0305	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm Th 3:00pm - 3:50pm	ESJ 0202 SPH 0305	Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm F 10:00am - 10:50am	ESJ 0202 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Kendall Bustad	Seats (Total: 20)	
	MW 3:00pm - 3:50pm F 11:00am - 11:50am	ESJ 0202 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
ESG1	Kendall Bustad	Seats (Total: 35)	
	Class time/details on ELMs Th 10:00am - 10:50am	ONLINE ONLINE	
	Restricted to Shady Grove students in the Public Health Science major.		

PHSC497 Public Health Science Capstone

Prerequisite: Must have completed the professional writing requirement with a C- or higher; and minimum grade of C- in PHSC450. Restriction: Must have earned a minimum of 100 credits; and must be in Public Health Science program; and must be in the final semester of undergraduate study. Credit only granted for: SPHL498F or PHSC497. Formerly: SPHL498F.

The capstone course is the culminating experience for Public Health Science students and must be taken only in the final semester of study. The Public Health Science capstone course is designed to challenge students to integrate the five core areas of public health in investigating, researching and addressing public health issues. Throughout the semester, students will be required to evaluate, analyze and synthesize scholarly works as they research and propose solutions to a variety of public health issues. By the conclusion of this research based course, students will understand how the various public health perspectives can combine in addressing and informing public health practices.

0101	Kevin Glasz M 4:00pm - 6:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park students in the Public Health Science major (code 12140).	
0201	Kendall Bustad M 4:00pm - 6:30pm	Seats (Total: 20) ESJ B0322
	Restricted to College Park students in the Public Health Science major (code 12140).	
0301	Kevin Glasz Tu 4:00pm - 6:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park students in the Public Health Science major (code 12140).	
0401	Aysha Jawed Tu 6:00pm - 8:30pm	Seats (Total: 20) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	
0501	Jennifer German W 4:00pm - 6:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park Students in the Public Health Science major (code 12140).	
0601	Carmen Booker W 6:00pm - 8:30pm	Seats (Total: 20) SPH 0225
	Restricted to College Park students in the Public Health Science major (code 12140).	
0701	Lakeshia Watson Th 6:00pm - 8:30pm	Seats (Total: 20) SPH 0305
	Restricted to College Park students in the Public Health Science major (code 12140).	

0801	Carmen Booker M 6:00pm - 8:30pm	Seats (Total: 20) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	
0901	Darya Soltani M 5:00pm - 7:30pm	Seats (Total: 20) SPH 0121
	Restricted to College Park students in the Public Health Science major (code 12140).	
1001	Shannon Edward Tu 3:00pm - 5:30pm	Seats (Total: 20) ONLINE
	Restricted to College Park students in the Public Health Science major (code 12140).	
1101	Catherine Sapp Th 4:00pm - 6:30pm	Seats (Total: 20) SPH 0227
	Restricted to College Park students in the Public Health Science major (code 12140).	
1201	Eric Silfen Tu 6:00pm - 8:30pm	Seats (Total: 20) ONLINE
	Restricted to College Park Students in the Public Health Science major (code 12140).	
1301	Lakeshia Watson Tu 5:00pm - 7:30pm	Seats (Total: 20) ONLINE
ESG1	Ann Truelove Th 4:30pm - 7:00pm	Seats (Total: 20) BLD3 3226
	Restricted to Shady Grove students in the Public Health Science major.	

PHYS Physics Spring 2024

PHYS106 **Light, Perception, Photography, and Visual Phenomena**

Intended for the general student, this course will cover topics in optics which require minimal use of mathematics. Principles of optics, lenses, cameras, lasers and holography, physics of the eye, color vision and various visual phenomena such as rainbows.

0101	Jordan Goodman MWF 2:00pm - 2:50pm	Seats (Total: 142) PHY 1410

PHYS107 **Light, Perception, Photography and Visual Phenomena Laboratory**

Optional laboratory to accompany PHYS106. Laboratory experiments include geometrical optics (lenses, cameras, eye), optical instruments (telescope, binoculars), photography, perception, color phenomena, and wave phenomena.

0101	Anwar Bhatti M 3:00pm - 4:50pm	Seats (Total: 24) PHY 3214	 Lab
0201	Anwar Bhatti W 10:00am - 11:50am	Seats (Total: 24) PHY 3214	 Lab
0301	Anwar Bhatti Tu 1:00pm - 2:50pm	Seats (Total: 24) PHY 3214	 Lab

PHYS111 **Physics in the Modern World**

A survey course in general physics emphasizing the role that physics plays in science, technology, and society today. The course is concept oriented and minimal use of mathematics is made. Intended for the general student; does not satisfy the requirements of the professional schools.

Contact department for information to register for this course.

PHYS121 **Fundamentals of Physics I**

Prerequisite: MATH113 or MATH115. Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics. Together with PHYS122, this generally satisfies the minimum requirement of medical and dental schools.

Physics Clinic, PHY 1214, MTWHF 12,2. If purchasing used books additional software may be required. Students must pay a $50.00 lab materials fee.

0301	Zackaria Chacko MWF 3:00pm - 3:50pm M 11:00am - 12:50pm W 11:00am - 11:50am	Seats (Total: 28) PHY 1412 PHY 3306 PHY 0405	 Lab Discussion
0302	Zackaria Chacko MWF 3:00pm - 3:50pm Tu 1:00pm - 2:50pm Th 1:00pm - 1:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 0405	 Lab Discussion
0303	Zackaria Chacko MWF 3:00pm - 3:50pm Th 12:00pm - 1:50pm Tu 12:00pm - 12:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion

0304	Zackaria Chacko MWF 3:00pm - 3:50pm Th 4:00pm - 5:50pm Tu 4:00pm - 4:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 0405	 Lab Discussion
0305	Zackaria Chacko MWF 3:00pm - 3:50pm Tu 5:00pm - 6:50pm Th 5:00pm - 5:50pm	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0306	Zackaria Chacko MWF 3:00pm - 3:50pm Tu 10:00am - 11:50am Th 10:00am - 10:50am	Seats (Total: 28) PHY 1412 PHY 3306 PHY 1219	 Lab Discussion
0307	Zackaria Chacko MWF 3:00pm - 3:50pm W 11:00am - 12:50pm M 11:00am - 11:50am	Seats (Total: 28) PHY 1412 PHY 3306 PHY 0405	 Lab Discussion
0401	Zackaria Chacko MW 6:30pm - 7:45pm W 8:00pm - 9:50pm M 8:00pm - 8:50pm	Seats (Total: 12) PHY 1201 PHY 3306 PHY 1201	 Lab Discussion
0403	Zackaria Chacko MW 6:30pm - 7:45pm M 8:00pm - 9:50pm W 8:00pm - 8:50pm	Seats (Total: 24) PHY 1201 PHY 3306 PHY 0405	 Lab Discussion
0405	Zackaria Chacko MW 6:30pm - 7:45pm Tu 7:00pm - 8:50pm Tu 6:00pm - 6:50pm	Seats (Total: 24) PHY 1201 PHY 3306 PHY 0405	 Lab Discussion
SES1	Zackaria Chacko MW 6:30pm - 7:45pm W 8:00pm - 9:50pm M 8:00pm - 8:50pm	Seats (Total: 8) PHY 1201 PHY 3306 PHY 0405	 Lab Discussion

PHYS122 Fundamentals of Physics II

Prerequisite: PHYS121; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools.

Physics Clinic, PHY 1214, MTWHF 11,2. If purchasing used books additional software may be required. Students must pay a $50.00 lab materials fee.

0301	Aria Heidarian	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1412	
	Th 10:00am - 11:50am	PHY 3314	Lab
	Th 9:00am - 9:50am	PHY 1219	Discussion
0302	Aria Heidarian	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1412	
	Th 12:00pm - 1:50pm	PHY 3314	Lab
	Th 11:00am - 11:50am	PHY 1402	Discussion
0303	Aria Heidarian	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1412	
	M 2:00pm - 3:50pm	PHY 3314	Lab
	M 1:00pm - 1:50pm	PHY 1219	Discussion
0304	Aria Heidarian	Seats (Total: 24)	
	TuTh 3:30pm - 4:45pm	PHY 1412	
	W 2:00pm - 3:50pm	PHY 3314	Lab
	W 1:00pm - 1:50pm	PHY 1219	Discussion
0502	Aria Heidarian	Seats (Total: 4)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	Th 8:00pm - 9:50pm	PHY 3314	Lab
	Tu 8:00pm - 8:50pm	PHY 1219	Discussion
0503	Aria Heidarian	Seats (Total: 24)	
	TuTh 6:30pm - 7:45pm	PHY 1410	
	M 7:00pm - 8:50pm	PHY 3314	Lab
	M 6:00pm - 6:50pm	PHY 1219	Discussion

SES1	Aria Heidarian TuTh 6:30pm - 7:45pm Th 8:00pm - 9:50pm Tu 8:00pm - 8:50pm	Seats (Total: 20) PHY 1410 PHY 3314 PHY 1219	 Lab Discussion
	Must be in the Science in the Evening (SIE) Program. Click here for more information.		

PHYS131 **Fundamentals of Physics for Life Sciences I**

Prerequisite: CHEM131; and (MATH136 or MATH140); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

Students must pay a $50.00 lab materials fee.

0101	David Buehrle TuTh 11:00am - 12:15pm W 9:00am - 11:50am	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0102	David Buehrle TuTh 11:00am - 12:15pm M 9:00am - 11:50am	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0103	David Buehrle TuTh 11:00am - 12:15pm Th 2:00pm - 4:50pm	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0104	David Buehrle TuTh 11:00am - 12:15pm M 5:00pm - 7:50pm	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0105	David Buehrle TuTh 11:00am - 12:15pm W 5:00pm - 7:50pm	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0201	David Buehrle MWF 11:00am - 11:50am Tu 9:00am - 11:50am	Seats (Total: 24) PHY 1410 PHY 3310	 Lab

0202	David Buehrle MWF 11:00am - 11:50am W 2:00pm - 4:50pm	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0203	David Buehrle MWF 11:00am - 11:50am M 2:00pm - 4:50pm	Seats (Total: 24) PHY 1410 PHY 3310	 Lab
0204	David Buehrle MWF 11:00am - 11:50am Tu 5:00pm - 7:50pm	Seats (Total: 22) PHY 1410 PHY 3310	 Lab
0205	David Buehrle MWF 11:00am - 11:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) PHY 1410 PHY 3310	 Lab

PHYS132 **Fundamentals of Physics for Life Sciences II**

Prerequisite: PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

Students must pay a $50.00 lab materials fee.

0101	Matt Severson MWF 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab
0102	Matt Severson MWF 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab
0103	Matt Severson MWF 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab
0104	Matt Severson MWF 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) PHY 1412 PHY 3312	 Lab

0105	Matt Severson	Seats (Total: 24)	
	MWF 10:00am - 10:50am Th 8:00am - 10:50am	PHY 1412 PHY 3312	 Lab
0106	Matt Severson	Seats (Total: 24)	
	MWF 10:00am - 10:50am Th 11:00am - 1:50pm	PHY 1412 PHY 3312	 Lab
0107	Matt Severson	Seats (Total: 24)	
	MWF 10:00am - 10:50am Tu 5:00pm - 7:50pm	PHY 1412 PHY 3312	 Lab
0108	Matt Severson	Seats (Total: 24)	
	MWF 10:00am - 10:50am W 5:00pm - 7:50pm	PHY 1412 PHY 3312	 Lab
0109	Matt Severson	Seats (Total: 24)	
	MWF 10:00am - 10:50am Tu 8:00pm - 9:50pm M 8:00pm - 8:50pm	PHY 1412 PHY 3312 PHY 3312	 Lab Discussion
0110	Matt Severson	Seats (Total: 12)	
	MWF 10:00am - 10:50am Th 8:00pm - 9:50pm W 8:00pm - 8:50pm	PHY 1412 PHY 3312 PHY 3312	 Lab Discussion
0201	Matt Severson	Seats (Total: 19)	
	TuTh 12:30pm - 1:45pm Tu 8:00am - 10:50am	ESJ 2208 PHY 3312	 Lab
0202	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm W 2:00pm - 4:50pm	ESJ 2208 PHY 3312	 Lab
0203	Matt Severson	Seats (Total: 24)	
	TuTh 12:30pm - 1:45pm M 2:00pm - 4:50pm	ESJ 2208 PHY 3312	 Lab
0204	Matt Severson	Seats (Total: 22)	
	TuTh 12:30pm - 1:45pm W 8:00am - 10:50am	ESJ 2208 PHY 3312	 Lab

0205	Matt Severson TuTh 12:30pm - 1:45pm Th 2:00pm - 4:50pm	Seats (Total: 24) ESJ 2208 PHY 3312	 Lab
0206	Matt Severson TuTh 12:30pm - 1:45pm M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 2208 PHY 3312	 Lab
0207	Matt Severson TuTh 12:30pm - 1:45pm Th 5:00pm - 7:50pm	Seats (Total: 24) ESJ 2208 PHY 3312	 Lab
0210	Matt Severson TuTh 12:30pm - 1:45pm Th 8:00pm - 8:50pm W 8:00pm - 8:50pm	Seats (Total: 2) ESJ 2208 PHY 3312 PHY 3312	 Lab Discussion

PHYS137 **The Quantum Wave: understanding the potential impact of quantum information on society**

Additional information: This class is not open to students in the STEM major.

Advances in quantum information science and engineering (QISE), particularly quantum computing, have the potential to significantly disrupt and change the day-to-day lives of every person. In this course, we'll learn about the confluence of engineering, physics, and computer science that make this field so promising and develop tools to make sense of the scientific, societal, and ethical implications of these emerging technologies. Students will study, in depth, applications of QISE that are of particular and personal interest to share with others how they envision navigating a facet of day-to-day life that has been disrupted by advances in QISE. No prior background in STEM required. This course is only open to non-STEM majors.

0101	Erin Sohr, Patrick Banner TuTh 2:00pm - 3:15pm	Seats (Total: 25) PHY 1204

PHYS161 **General Physics: Mechanics and Particle Dynamics**

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS275.

First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

Physics Clinic, PHY 1214, MTWHF 11, 1, 2. If purchasing used books additional software may be required.

0101	Hailu Gebremariam TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 35) ARM 0126 PHY 1219	Discussion
0102	Hailu Gebremariam TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 35) ARM 0126 PHY 1219	Discussion
0103	Hailu Gebremariam TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 35) ARM 0126 PHY 1219	Discussion
0104	Hailu Gebremariam TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 35) ARM 0126 PHY 1219	Discussion
0105	Hailu Gebremariam TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 35) ARM 0126 PHY 1219	Discussion
0106	Hailu Gebremariam TuTh 2:00pm - 3:15pm M 3:00pm - 3:50pm	Seats (Total: 35) ARM 0126 PHY 0405	Discussion
0107	Hailu Gebremariam TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 35) ARM 0126 PHY 0405	Discussion
0108	Hailu Gebremariam TuTh 2:00pm - 3:15pm F 4:00pm - 4:50pm	Seats (Total: 35) ARM 0126 PHY 0405	Discussion
0109	Hailu Gebremariam TuTh 2:00pm - 3:15pm M 4:00pm - 4:50pm	Seats (Total: 35) ARM 0126 PHY 1402	Discussion
0301	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 35) PHY 1412 PHY 0405	Discussion

0302	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 4:00pm - 4:50pm	Seats (Total: 35) PHY 1412 PHY 4221	Discussion
0303	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 4:00pm - 4:50pm	Seats (Total: 35) PHY 1412 PHY 4221	Discussion
0304	Hailu Gebremariam MWF 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 4221	Discussion
0305	Hailu Gebremariam MWF 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 35) PHY 1412 PHY 1204	Discussion
0306	Hailu Gebremariam MWF 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0307	Hailu Gebremariam MWF 2:00pm - 2:50pm Th 3:00pm - 3:50pm	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0308	Hailu Gebremariam MWF 2:00pm - 2:50pm Tu 5:00pm - 5:50pm	Seats (Total: 35) PHY 1412 PHY 4221	Discussion
0401	Aria Heidarian MW 6:00pm - 7:15pm M 7:30pm - 8:20pm	Seats (Total: 35) PHY 1412 PHY 1219	Discussion
0402	Aria Heidarian MW 6:00pm - 7:15pm W 7:30pm - 8:20pm	Seats (Total: 35) PHY 1412 PHY 1219	Discussion
0403	Aria Heidarian MW 6:00pm - 7:15pm M 5:00pm - 5:50pm	Seats (Total: 35) PHY 1412 PHY 2211	Discussion

0404	Aria Heidarian	Seats (Total: 35)	
	MW 6:00pm - 7:15pm W 5:00pm - 5:50pm	PHY 1412 PHY 2211	Discussion

PHYS171 **Introductory Physics: Mechanics**

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. Credit only granted for: PHYS141, PHYS161, or PHYS171. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS275.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta.

Jointly offered with PHYS171H.

0101	Eun-Suk Seo	Seats (Total: 49)	
	TuTh 12:30pm - 1:45pm M 10:00am - 10:50am	PHY 1402 ESJ 1215	

PHYS171H **Introductory Physics: Mechanics**

(Perm req)

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. Credit only granted for: PHYS141, PHYS161, or PHYS171. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS275.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta.

Jointly offered with PHYS171.

0101	Eun-Suk Seo	Seats (Total: 49)	
	TuTh 12:30pm - 1:45pm M 10:00am - 10:50am	PHY 1402 ESJ 1215	

PHYS172 **Succeeding in Physics: Applications, Resources and Concepts**

(Perm req)

Corequisite: PHYS171. Restriction: Permission of CMNS-Physics department.

Supplemental instruction and support for students taking PHYS171, especially for students with limited high school physics preparation, or who will benefit from extra review and practice of relevant mathematics and physics concepts and skills.

0101	Peter Shawhan W 10:00am - 10:50am	Seats (Total: 12) PHY 1402	

PHYS260 **General Physics: Electricity, Magnetism and Thermodynamics**

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Electrostatics, magnetism, induction, DC and AC circuits; Maxwell's Equations, heat, and thermodynamics.

If purchasing used books additional software may be required.

0101	David Buehrle MWF 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 38) PHY 1410 PHY 1219	 Discussion
0102	David Buehrle MWF 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 PHY 1219	 Discussion
0104	David Buehrle MWF 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 PHY 1204	 Discussion
0201	Rajarshi Roy MW 4:00pm - 5:15pm Tu 2:00pm - 2:50pm	Seats (Total: 35) PHY 1412 PHY 1402	 Discussion
0202	Rajarshi Roy MW 4:00pm - 5:15pm Th 2:00pm - 2:50pm	Seats (Total: 35) PHY 1412 PHY 2208	 Discussion
0203	Rajarshi Roy MW 4:00pm - 5:15pm W 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 1402	 Discussion
0205	Rajarshi Roy MW 4:00pm - 5:15pm Th 4:00pm - 4:50pm	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion
0301	David Buehrle MWF 3:00pm - 3:50pm M 12:00pm - 12:50pm	Seats (Total: 35) PHY 1410 PHY 1219	 Discussion

0302	David Buehrle MWF 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 35) PHY 1410 PHY 0405	 Discussion
0303	David Buehrle MWF 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 35) PHY 1410 PHY 1219	 Discussion
0304	David Buehrle MWF 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 35) PHY 1410 PHY 0405	 Discussion

PHYS261 **General Physics: Mechanics, Vibrations, Waves, Heat (Laboratory)**

Prerequisite: PHYS161.

Lab includes experiments on mechanics, vibrations, waves, and heat. Engineering majors are expected to take PHYS260 and PHYS261 in the same semester.

Students must pay a $50.00 lab materials fee.

0101	Andris Skuja, Matt Severson M 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	 Lab
0102	Andris Skuja, Matt Severson M 12:00pm - 2:20pm	Seats (Total: 36) PHY 3219	 Lab
0103	Matt Severson, Andris Skuja W 6:00pm - 8:20pm	Seats (Total: 36) PHY 3219	 Lab
0104	Andris Skuja, Matt Severson Tu 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	 Lab
0105	Andris Skuja, Matt Severson Tu 5:00pm - 7:20pm	Seats (Total: 36) PHY 3219	 Lab
0107	Andris Skuja, Matt Severson W 11:00am - 1:20pm	Seats (Total: 36) PHY 3219	 Lab
0108	Andris Skuja, Matt Severson Th 12:00pm - 2:20pm	Seats (Total: 36) PHY 3219	 Lab

0109	Andris Skuja, Matt Severson Th 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab

PHYS265 **Introduction to Scientific Programming**

Prerequisite: PHYS171, PHYS141, or PHYS161; or must have scored 3 or higher on AP PHYS C Mechanics exam. Credit only granted for: PHYS165 or PHYS265. Formerly: PHYS165.

Introduction to scientific programming with python. Basic data types, sequences, input/output, and program control flow structures. Evaluation and plotting of mathematical functions and data. Statistical interpretation of data, and fitting of data to models. Introduction to numerical methods including integration, solutions of ordinary differential equations, and linear algebra. Extensive use of the numpy, matplotlib, and scipy packages.

Credit granted only for PHYS165 or PHYS265

0101	Peter Teuben, Carter Hall MWF 12:00pm - 12:50pm	Seats (Total: 50) ESJ 2309	

PHYS270 **General Physics: Waves, Optics, Relativity and Modern Physics**

Prerequisite: PHYS261, MATH241, and PHYS260. Corequisite: PHYS271.

Third semester of a three-semester calculus-based general physics course. Waves, sound, electromagnetic waves, optics, special theory of relativity, and modern physics.

If purchasing used books additional software may be required.

0101	Michael Crescimanno MWF 1:00pm - 1:50pm W 2:00pm - 2:50pm	Seats (Total: 28) PHY 1410 PHY 1402	 Discussion
0102	Michael Crescimanno MWF 1:00pm - 1:50pm M 3:00pm - 3:50pm	Seats (Total: 28) PHY 1410 PHY 1402	 Discussion
0103	Michael Crescimanno MWF 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 28) PHY 1410 PHY 1402	 Discussion
0104	Michael Crescimanno MWF 1:00pm - 1:50pm Th 8:00am - 8:50am	Seats (Total: 28) PHY 1410 PHY 1402	 Discussion

0106	Michael Crescimanno MWF 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 28) PHY 1410 PHY 1402	 Discussion
0201	Hailu Gebremariam MWF 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 1402	 Discussion
0202	Hailu Gebremariam MWF 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 1402	 Discussion
0203	Hailu Gebremariam MWF 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 31) PHY 1412 PHY 1402	 Discussion
0204	Hailu Gebremariam MWF 12:00pm - 12:50pm M 11:00am - 11:50am	Seats (Total: 31) PHY 1412 PHY 1402	 Discussion
0205	Hailu Gebremariam MWF 12:00pm - 12:50pm W 11:00am - 11:50am	Seats (Total: 30) PHY 1412 PHY 1219	 Discussion
0206	Hailu Gebremariam MWF 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 30) PHY 1412 PHY 1219	 Discussion
0401	Hailu Gebremariam MW 4:00pm - 5:15pm M 5:30pm - 6:20pm	Seats (Total: 31) PHY 1410 PHY 0405	 Discussion
0402	Hailu Gebremariam MW 4:00pm - 5:15pm W 5:30pm - 6:20pm	Seats (Total: 31) PHY 1410 PHY 0405	 Discussion
0403	Hailu Gebremariam MW 4:00pm - 5:15pm Th 6:00pm - 6:50pm	Seats (Total: 31) PHY 1410 PHY 0405	 Discussion

0404	Hailu Gebremariam MW 4:00pm - 5:15pm W 5:30pm - 6:20pm	Seats (Total: 31) PHY 1410 PHY 1219	 Discussion

PHYS271 **General Physics: Electrodynamics, Light, Relativity and Modern Physics (Laboratory)**

Prerequisite: PHYS261. Corequisite: PHYS270.

Lab includes experiments on ac circuits, magnetism, light and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

Students must pay a $50.00 lab materials fee.

0101	Andris Skuja, Matt Severson M 9:00am - 11:50am	Seats (Total: 36) PHY 3213	 Lab
0103	Andris Skuja, Matt Severson M 3:00pm - 5:50pm	Seats (Total: 36) PHY 3213	 Lab
0105	Andris Skuja, Matt Severson M 6:00pm - 8:50pm	Seats (Total: 36) PHY 3213	 Lab
0106	Andris Skuja, Matt Severson Tu 11:00am - 1:50pm	Seats (Total: 36) PHY 3213	 Lab
0107	Andris Skuja, Matt Severson Tu 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	 Lab
0108	Andris Skuja, Matt Severson W 6:00pm - 8:50pm	Seats (Total: 36) PHY 3213	 Lab
0109	Andris Skuja, Matt Severson Th 1:00pm - 3:50pm	Seats (Total: 36) PHY 3213	 Lab
0110	Matt Severson, Andris Skuja W 2:00pm - 4:50pm	Seats (Total: 36) PHY 3213	 Lab
0111	Matt Severson, Andris Skuja Th 9:00am - 11:50am	Seats (Total: 36) PHY 3213	 Lab
0112	Matt Severson, Andris Skuja Th 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	 Lab

0114	Andris Skuja, Matt Severson	Seats (Total: 36)	
	Tu 7:00pm - 9:50pm	PHY 3213	Lab

PHYS272 **Introductory Physics: Fields**

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

Cross-listed with PHYS272H. Credit granted for PHYS272 or PHYS272H.

0101	James Drake	Seats (Total: 54)	
	TuTh 12:30pm - 1:45pm	PHY 1204	
	W 10:00am - 10:50am	PHY 1204	

PHYS272H **Introductory Physics: Fields**

(Perm req)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

For general honors students only. Cross-listed with PHYS272. Credit granted for PHYS272 or PHYS272H.

0101	James Drake	Seats (Total: 54)	
	TuTh 12:30pm - 1:45pm	PHY 1204	
	W 10:00am - 10:50am	PHY 1204	

PHYS273 **Introductory Physics: Waves**

Prerequisite: MATH241 and PHYS272; and must have completed or be concurrently enrolled in PHYS274, MATH243 or equivalent.

Mechanical and electrical oscillators, including damped and driven systems; coupled oscillators and normal modes; Fourier series and Fourier transforms; the classical wave equation, traveling and standing waves; reflection and transmission; Maxwell's equations in differential form; physical optics. Extensive use of complex variables.

Cross-listed with PHYS273H. Credit granted for PHYS273 or PHYS273H.

0101	Alicia Kollar, Peter Shawhan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 54) PHY 1201 ESJ 1215

PHYS273H **Introductory Physics: Waves**

(Perm req)

Prerequisite: MATH241 and PHYS272; and must have completed or be concurrently enrolled in PHYS274, MATH243 or equivalent.

Mechanical and electrical oscillators, including damped and driven systems; coupled oscillators and normal modes; Fourier series and Fourier transforms; the classical wave equation, traveling and standing waves; reflection and transmission; Maxwell's equations in differential form; physical optics. Extensive use of complex variables.

For general honors students only. Cross-listed with PHYS273. Credit granted for PHYS273 or PHYS273H.

0101	Alicia Kollar, Peter Shawhan TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 54) PHY 1201 ESJ 1215

PHYS274 **Mathematical Methods for Physics I**

Prerequisite: MATH241 and PHYS272.

A first course in mathematical methods for physics. Topics include linear algebra, curvilinear coordinates and vector analysis.

0101	Ki-Yong Kim MWF 2:00pm - 2:50pm	Seats (Total: 44) PHY 0405

PHYS275 **Experimental Physics I: Mechanics and Heat**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in PHYS171 or PHYS161. Additional information: General Education Natural Sciences Lab (DSNL) Course only when taken concurrently with PHYS171 or PHYS161.

A first course for physics majors and interested engineering students introducing the methods of experimental science. Students learn to identify various statistical data distributions, carry out rigorous uncertainty analysis, and test whether a given theoretical model adequately describes the observed phenomena. These concepts are applied to sophisticated physical systems that exhibit complex behavior and can yield remarkably precise and accurate results. Experiments are chosen from the areas of mechanics and waves.

0101	Arpita Upadhyaya MW 2:00pm - 3:50pm	Seats (Total: 14) PHY 3104	Lab
0201	Arpita Upadhyaya MW 4:00pm - 5:50pm	Seats (Total: 14) PHY 3104	Lab
0301	Maria Mukhina TuTh 2:00pm - 3:50pm	Seats (Total: 14) PHY 3104	Lab
0401	Maria Mukhina TuTh 4:00pm - 5:50pm	Seats (Total: 14) PHY 3104	Lab

PHYS276 **Experimental Physics II: Electricity and Magnetism**

(Perm req)

Prerequisite: PHYS272 and PHYS275.

Second course in the three semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the fields of electricity and magnetism including electrostatics, magnetostatics, magnetic induction, AC circuits.

0101	Simone-Gunde Kulin M 1:00pm - 4:50pm	Seats (Total: 14) PHY 3203	Lab
0201	Simone-Gunde Kulin Tu 1:00pm - 4:50pm	Seats (Total: 14) PHY 3203	Lab
0301	Brian Clark Th 2:00pm - 5:50pm	Seats (Total: 14) PHY 3203	Lab
0401	Brian Clark W 2:00pm - 5:50pm	Seats (Total: 14) PHY 3203	Lab

PHYS299 **Special Problems in Physics**

(Perm req)

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS299R **Special Problems in Physics; General Physics**

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS299W **Special Problems in Physics; Workforce Skills Development for Physics Undergraduates**

(Perm req)

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Prerequisites: PHYS171 or permission of instructor Supports students navigating opportunities in the workforce. Building self-confidence through skills assessments, identifying potential career paths, and learning effective job search strategies. Students will connect with professionals across industry to grow their network, build resumes, and conduct mock interviews. Includes mentoring and developing awareness of workforce diversity issues. Restriction: Intended for Physics Majors

0101	Donna Hammer, Stephanie Williams	Seats (Total: 10)
	W 12:00pm - 1:50pm	PLS 1164

PHYS313 **Electricity and Magnetism I**

Prerequisite: MATH241, PHYS273, and one of the following: PHYS274, MATH240, MATH243, MATH246, or equivalent courses.

A first course in electricity and magnetism at an advanced level. Electrostatics; solutions to the Laplace and Poisson equations in cartesian and spherical coordinates; electric fields in matter; and magnetostatics. Study of boundary value problems and extensive use of vector calculus.

Prerequisite: PHYS273 Credit granted for PHYS313 or PHYS412 only

0101	Kaustubh Agashe	Seats (Total: 50)
	TuTh 9:30am - 10:45am	PHY 4221
	F 12:00pm - 12:50pm	PHY 4221

PHYS332 **Physics for Life Sciences II**

Prerequisite: PHYS331; or PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

ESG1	Lorin Milescu, Nidhi Verma	Seats (Total: 16)	
	TuTh 10:00am - 11:15am	BLD4 4321	
	M 2:00pm - 5:00pm	BLD4 3322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

ESG2	Lorin Milescu, Nidhi Verma TuTh 10:00am - 11:15am W 2:00pm - 5:00pm	Seats (Total: 12) BLD4 4321 BLD4 3322	 Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

PHYS371 **Modern Physics**

Prerequisite: PHYS273 and PHYS274. Corequisite: PHYS373. Credit only granted for: PHYS371 or PHYS420. Additional information: This course is intended primarily for physics and astronomy majors.

Introduces students to special relativity, thermodynamics and quantum mechanics at an intermediate level.

0101	Chandra Turpen TuTh 9:30am - 10:45am	Seats (Total: 54) PHY 1204

PHYS373 **Mathematical Methods for Physics II**

Prerequisite: PHYS273 and PHYS274.

A second course in mathematical methods for physics. Topics include introduction to ordinary differential equations, partial differential equations, and complex analysis.

0101	Alexander Philippov TuTh 12:30pm - 1:45pm	Seats (Total: 54) PHY 4221

PHYS375 **Experimental Physics III: Electromagnetic Waves, Optics and Modern Physics**

(Perm req)

Prerequisite: PHYS276 and PHYS273.

Third course in the three-semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the areas of electromagnetic waves, optics and modern physics.

0101	Wendell Hill MW 2:00pm - 2:50pm M 3:00pm - 5:50pm	Seats (Total: 13) PHY 1204 PHY 3115	 Lab
0201	Wendell Hill MW 2:00pm - 2:50pm Tu 3:00pm - 5:50pm	Seats (Total: 13) PHY 1204 PHY 3115	 Lab
0301	Wendell Hill MW 2:00pm - 2:50pm W 3:00pm - 5:50pm	Seats (Total: 13) PHY 1204 PHY 3115	 Lab

PHYS386 **Experiential Learning**

(Perm req)

Contact department for information to register for this course.

PHYS389 **Undergraduate Thesis Research**

(Perm req)

Independent directed research and study on a topic selected by the student in consultation with his or her advisor. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

PHYS398 **Independent Studies Seminar**

(Perm req)

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS398T **Independent Studies Seminar; Seminar in Interdisciplinary STEM Education: Teaching Physics for Biologists**

(Perm req)

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS399 **Special Problems in Physics**

(Perm req)

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399J **Special Problems in Physics; Physics STEM SEminar V**

(Perm req)

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS401 **Quantum Physics I**

Prerequisite: PHYS371 and PHYS373. Formerly: PHYS421.

Introduces some quantum phenomena leading to wave-particle duality. Schroedinger theory for bound states and scattering in one dimension. One-particle Schroedinger equation and the hydrogen atom.

0101	Kara Hoffman MW 10:00am - 11:15am F 10:00am - 10:50am	Seats (Total: 55) PHY 1201 ESJ 0215

PHYS402 **Quantum Physics II**

Prerequisite: PHYS401.

Quantum states as vectors; spin and spectroscopy, multiparticle systems, the periodic table, perturbation theory, band structure, etc.

0101	Victor Galitski	Seats (Total: 54)	
	MWF 9:00am - 9:50am	PHY 1201	
	F 1:00pm - 1:50pm	ESJ 0215	

PHYS404 **Introduction to Statistical Thermodynamics**

Prerequisite: PHYS371 or PHYS420.

Introduction to basic concepts in thermodynamics and statistical mechanics.

0101	Howard Milchberg	Seats (Total: 68)	
	TuTh 12:30pm - 1:45pm	PHY 1201	

PHYS405 **Advanced Experiments**

(Perm req)

Prerequisite: PHYS375. Restriction: Must be in a major within CMNS-Physics department.

Advanced laboratory techniques. Selected experiments from many fields of modern physics. Emphasis on self-study of the phenomena, data analysis, and presentation in report form.

0101	Min Ouyang	Seats (Total: 16)	
	W 12:00pm - 12:50pm	PHY 1219	Lab
	TBA	PHY 3112	Lab

PHYS406 **Experimental Research Development**

(Perm req)

Prerequisite: PHYS375. Restriction: Permsission of CMNS-Physics department. Additional information: The student is expected to work on the project for approximately 9 hours per week in a standard semester or a total of 135 hours in a non-standard semester. PHYS406 may not be used to satisfy an advanced physics elective.

Part I of a two-semester, independent, experimental research project supervised by a faculty mentor. The student participates significantly in experimental design, set-up, and collection and analysis of real, physical data, including the evaluation of experimental uncertainties. The student maintains a lab notebook and completes an end-of-semester progress report.

0101	Carter Hall	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS407 **Undergraduate Experimental Research**

(Perm req)

Prerequisite: PHYS499 and PHYS375; and permission of CMNS-Physics department. Restriction: Must be in a major within CMNS-Physics department; and senior standing.

Students develop and complete an independent, experimental research project with a professor in the Physics Department. The project should be a continuation of work done in PHYS499A. To obtain permission, students must submit a proposal describing the experimental work to be completed and this proposal must be approved by their faculty mentor, the associate chair for undergraduate education and the chair of the laboratory committee. Students must maintain a lab notebook, give an oral presentation and complete a written report on their research that includes data and error analysis.

0101	Carter Hall	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS410 **Classical Mechanics**

Prerequisite: PHYS373.

Theoretical foundations of mechanics with extensive application of the methods. Various mathematical tools of theoretical physics.

0101	Maissam Barkeshli	Seats (Total: 44)
	TuTh 11:00am - 12:15pm	PHY 1201
	F 10:00am - 10:50am	PHY 4221

PHYS413 **Electricity and Magnetism II**

Prerequisite: PHYS313 or PHYS412. Credit only granted for: PHYS411 or PHYS413.

The second semester of a two semester course with emphasis on electromagnetic waves, potentials and gauge invariance, and relativistic electrodynamics

0101	Victor Yakovenko	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 0402

PHYS420 **Principles of Modern Physics**

Prerequisite: MATH246. And PHYS271 and PHYS270; or PHYS273. Credit only granted for: PHYS371 or PHYS420.

A survey of atomic and nuclear phenomena and the main trends in modern physics. Appropriate for students in engineering and other physical sciences.

0101	Phoebe Hamilton	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	PHY 1402

PHYS431 **Introduction to Solid State Physics**

(Perm req)

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: ENMA460. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Ichiro Takeuchi	Seats (Total: 20)
	MW 5:00pm - 6:15pm	PHY 4221

PHYS441 **Topics in Nuclear and Particle Physics**

Prerequisite: PHYS401 or PHYS402. Corequisite: PHYS402.

A survey of concepts in particle and nuclear physics, with a topical emphasis on the impact of the Weak Interaction and the discovery of Parity Violation.

0101	Christopher Palmer	Seats (Total: 38)
	TuTh 2:00pm - 3:15pm	PHY 1219

PHYS457 **Introduction to Quantum Computing**

(Perm req)

Prerequisite: 1 course with a minimum grade of C- from (MATH240, PHYS274); and 1 course with a minimum grade of C- from (CMSC351, PHYS373). Restriction: Permission of CMNS-Physics department; or permission of CMNS-Computer Science department. Cross-listed with CMSC4 57. Credit only granted for: PHYS457 or CMSC457. Additional infor mation: No previous background in quantum mechanics is required.

An introduction to the concept of a quantum computer, including algorithms that outperform classical computation and methods for performing quantum computation reliably in the presence of noise. As this is a multidisciplinary subject, the course will cover basic concepts in theoretical computer science and physics in addition to introducing core quantum computing topics.

0101	Gorjan Alagic	Seats (Total: 40)
	MW 9:30am - 10:45am	ATL 1114

PHYS474 **Computational Physics**

Prerequisite: PHYS373; and (PHYS165, CMSC106, or CMSC131). Recommended: PHYS401 (strongly recommended). Additional information: Students will need a laptop for this course to run specific software; however, arrangements will be made for those who need them. Students will need to load the Python 3 language on your computer, which will be done in the first week of class. The class will use the "Anaconda" environment/distribution, which is available for Mac/Windows/Linux. Contact the department for more information.

Introduction to computational physics. Overview of some of the most widely used methods of computational physics and computational methods, including data analysis and statistical methods, visualization, numerical solutions of ordinary and partial differential equations (classical equations of motion, Poisson's equation, time independent and time dependent Schrodinger equations) and Monte Carlo simulations. In addition to giving the students a basic working knowledge of these particular techniques, the goal is to make them proficient in scientific computing and programming in general, so that they will be prepared to tackle other computational and data analysis problems that they may encounter in the future. This course will use the programming language Python.

The department is waiving the PHYS404 prerequisite for the Spring 2024 semester.

0101	Gregory Sullivan MW 3:00pm - 4:15pm	Seats (Total: 50) PHY 4221	

PHYS487 **Computerized Instrumentation**

(Perm req)

Prerequisite: PHYS276 or Permission of Instructor. Restriction: Departmental Permission.

Concentration on computer interfaces to measurement devices. Includes a review of basic electronic circuits and measurement devices. Extensive work with arduinos, making use of a variety of measurement probes. Includes introduction to the C++ programming language, the Segger development environment, and real-time operating systems (RTOS) used in advanced physics experiments.

0101	Sarah Eno, Aaron Sternbach M 2:00pm - 2:50pm W 1:00pm - 4:50pm	Seats (Total: 10) PHY 1402 PHY 3220	 Lab
0102	Aaron Sternbach, Sarah Eno M 2:00pm - 2:50pm Tu 2:00pm - 5:50pm	Seats (Total: 10) PHY 1402 PHY 3220	 Lab

PHYS499A **Special Problems in Physics**

(Perm req)

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499B **Special Problems in Physics**

(Perm req)

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499V **Special Problems in Physics; Colloquium for Undergraduate Physics Majors**

(Perm req)

Research or special study. Credit according to work done.

0101	Instructor: TBA Th 4:00pm - 6:50pm	Seats (Total: 60) Location: TBA	

PHYS499X **Special Problems in Physics; Making Physics Experiments**

(Perm req)

Research or special study. Credit according to work done.

Prerequisite: PHYS276 or permission of instructor. Laboratory course emphasizing practical skills used for making physics experiments within the broader context of the maker movement and the maker culture. Course will cover design, fabrication, hands-on skills, repair, and safety.

0101	Daniel Lathrop TuTh 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 15) PHY 1219 Location: TBA	 Lab

PHYS611 **Mathematical Methods and Their Applications in Classical Mechanics and Electrodynamics II**

Prerequisite: PHYS610 or permission of instructor. Restriction: Permission by Department.

Second course of a two-semester graduate level sequence on classical mechanics, electrodynamics and relativity and the mathematics that underlie these subjects. Mathematical methods will generally be introduced in the context of relevant physical problems.

0101	Phillip Sprangle TuTh 2:00pm - 3:50pm	Seats (Total: 68) PHY 1201

PHYS613 **Quantum and Statistical Physics II**

Prerequisite: PHYS612; or permission of instructor. Restriction: Permission of the Physics Department.

Second course of a two-semester graduate level sequence on topics in quantum mechanics and statistical mechanics.

0101	Xiangdong Ji MW 2:00pm - 3:50pm	Seats (Total: 68) PHY 1201

PHYS625 **Quantum Many-Body Theory I**

Prerequisite: PHYS612 and PHYS613.

Non-relativistic second quantization, path integrals and functional field integrals, perturbation theory with Feynman diagrams, interacting electron gas.

0101	Jay Sau	Seats (Total: 30)	
	MW 12:00pm - 12:50pm	PHY 0405	
	MW 1:00pm - 1:50pm	PHY 0405	

PHYS687 Computerized Instrumentation

Restriction: Departmental Permission and graduate standing in physics or permission of instructor.

Concentration on computer interfaces to measurement devices. Includes a review of basic electronic circuits and measurement devices. Extensive work with arduinos, making use of a variety of measurement probes. Includes introduction to the C++ programming language, the Segger development environment, and real-time operating systems (RTOS) used in advanced physics experiments.

0101	Sarah Eno, Aaron Sternbach	Seats (Total: 10)	
	M 2:00pm - 2:50pm	PHY 1402	
	W 1:00pm - 4:50pm	PHY 3220	Lab
0102	Sarah Eno, Aaron Sternbach	Seats (Total: 10)	
	M 2:00pm - 2:50pm	PHY 1402	
	Tu 2:00pm - 5:50pm	PHY 3220	Lab

PHYS709 Seminar in General Physics; Statistical Physics

Cross-listed with CHPH709B. Credit granted for CHPH709B or PHYS709.

0101	Pratyush Tiwary	Seats (Total: 30)
	Tu 1:15pm - 2:30pm	IPT 1116

PHYS720 Quantum Technology

Prerequisite: A good grounding in electromagnetism and quantum mechanics is necessary; familiarity with density matrices and master equations will be helpful.

Physical principles behind emerging quantum technologies, from quantum-limited sensors to quantum simulators, by applying quantum optics formalism. Examination of current and emerging platforms for quantum technologies, including neutral atom, ion trap, superconducting circuit, photonic, and spin-based approaches. Focus on hurdles for implementing quantum devices for new applications.

Crosslisted with ENEE789M. Credit only granted for PHYS720 or ENEE789M.

0101	Mohammad Hafezi	Seats (Total: 50)
	MW 3:30pm - 4:45pm	PHY 1204

PHYS721 **Atomic and Optical Physics I (Survey)**

Prerequisite: PHYS623.

A survey of topics involving the physics of atoms and their interaction with radiation, including atoms in external fields, lasers, atomic spectroscopy and atomic structure.

0101	Nathan Schine TuTh 2:00pm - 3:15pm	Seats (Total: 30) PHY 4221

PHYS728 **Seminar in Atomic and Molecular Physics**

0101	Mohammad Hafezi M 11:00am - 12:15pm	Seats (Total: 30) ATL 2400

PHYS738 **Seminar in Experimental Solid State Physics; Quantum Mechanical Many-Body Problems**

Advanced special students require department authorization.

0101	Johnpierre Paglione Th 2:00pm - 3:20pm	Seats (Total: 40) PHY 1402

PHYS739 **Seminar in Theoretical Solid State Physics; Quantum Mechanical Many-Body Problems**

Advanced special students require department authorization.

0101	Sankar Das Sarma Tu 11:00am - 12:20pm	Seats (Total: 30) PHY 1402

PHYS747 **Quantum Chromodynamics**

Recommended: PHYS624 or PHYS625.

A survey of the theory and phenomenology of strong interactions aimed at students with some basic familiarity with Quantum Field Theory.

0101	Paulo Bedaque MW 4:00pm - 5:15pm	Seats (Total: 25) PHY 2124

PHYS748 **Seminar in Experimental Nuclear Physics; Seminar in Nuclear Physics**

0101	Carter Hall W 11:30am - 1:00pm	Seats (Total: 10) Location: TBA

PHYS749 **Seminar in Theoretical Nuclear Physics**

0101	Paulo Bedaque Th 2:30pm - 4:00pm	Seats (Total: 30) MTH 0302

PHYS758E **Seminar in Elementary Particles and Quantum Field Theory; Experimental Results Including Cosmic Ray Physics**

0101	Peter Shawhan W 4:00pm - 5:30pm	Seats (Total: 25) PHY 1219

PHYS759 **Seminar in Elementary Particles and Quantum Field Theory**

Advanced special students require department authorization.

0101	Kaustubh Agashe M 4:00pm - 5:30pm	Seats (Total: 27) PSC 3150

PHYS762 **Plasma Physics II**

Prerequisite: PHYS761.

Continuation of PHYS 761. Vlasov theory, including waves, stability, and weak turbulence, kinetic equation theories of correlations and radiative processes.

0101	James Drake TuTh 9:30am - 10:45am	Seats (Total: 30) PHY 0405

PHYS769 **Seminar in Plasma Physics; Plasma Physics Research**

Advanced special students require department authorization.

0101	William Dorland W 3:30pm - 5:00pm	Seats (Total: 20) PHY 0405

PHYS778 **Seminar in Space and Cosmic Ray Physics**

Advanced special students require department authorization.

0101	Eun-Suk Seo M 4:30pm - 5:45pm	Seats (Total: 15) PHY 1219

PHYS798 **Special Problems in Advanced Physics**

(Perm req)

Projects or special study in advanced physics.

Contact department for information to register for this course.

PHYS798B **Special Problems in Advanced Physics; Physics Colloquium**

Projects or special study in advanced physics.

0101	Thomas Cohen Tu 4:00pm - 5:30pm	Seats (Total: 170) PHY 1410

PHYS798C **Special Problems in Advanced Physics; Superconductivity: An Introduction to the Phenomenology and Theory of Superconductivity**

Projects or special study in advanced physics.

0101	Steven Anlage TuTh 9:30am - 10:45am	Seats (Total: 30) PHY 1402

PHYS798J **Special Problems in Advanced Physics; Science and Technology Policy**

Projects or special study in advanced physics.

Jointly offered with PLCY689L. Credit only granted for PLCY689L or PHYS7 98J.

0101	Rosina Bierbaum, Sylvester Gates Tu 7:00pm - 9:30pm	Seats (Total: 34) TMH 0225

PHYS798L **Special Problems in Advanced Physics; Biophysics**

Projects or special study in advanced physics.

Cross-listed with CHPH709L and BIPH698L. Credit granted for CHPH709L, BIPH698L or PHYS798L.

0101	Arpita Upadhyaya M 4:00pm - 5:30pm	Seats (Total: 20) IPT 1116

PHYS798N **Special Problems in Advanced Physics; Neurophysics**

Projects or special study in advanced physics.

0101	Wolfgang Losert Tu 12:30pm - 3:15pm	Seats (Total: 30) BPS 1232

PHYS798Q **Special Problems in Advanced Physics; Seminar in Quantum Physics, Information, and Technology**

Projects or special study in advanced physics.

0101	Alexey Gorshkov F 12:00pm - 12:50pm	Seats (Total: 100) ATL 2324

PHYS799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

PHYS830 **Topics in Theoretical Condensed Matter Physics**

Prerequisite: Permission of Instructor.

A variety of current advanced topics in condensed matter theory will be treated in a tutorial format. Students should be familiar with concepts such as renormilization group theory, phase transitions, quantum information, and topological concepts.

0101	Sankar Das Sarma	Seats (Total: 30)
	Contact instructor or department for details.	

PHYS838C **Special Topics in Experimental Solid State Physics; Center for Nanophysics and Advanced Materials Seminar**

Credit according to work done.

0101	Richard Greene, Johnpierre Paglione	Seats (Total: 40)
	M 4:00pm - 6:00pm	PHY 1201

PHYS839A **Special Topics in Theoretical Solid State Physics**

Credit according to work done.

0101	Sankar Das Sarma	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS851 **Advanced Quantum Field Theory**

Prerequisite: PHYS624.

Renormalization, unitarity, gauge theory, S-matrix construction.

0101	Anson Hook	Seats (Total: 24)
	TuTh 11:00am - 12:15pm	PHY 1204

PHYS898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

PHYS899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PLCY Public Policy Spring 2024

PLCY100 **Foundations of Public Policy**

A survey course, focusing on public policy institutions and analytical issues as well as on overview of key public policy problems. Students will be introduced to public policy as a discipline, with a brief overview of the actors and institutions involved in the process, and familiarize themselves with the kinds of problems typically requiring public action. The course will examine these problems from a multijurisdictional and multisectoral perspective. Specific policy areas examined include education policy, health policy, economic and budgetary policy, criminal justice policy, environmental policy, and national and homeland security policy. The course should permit students to have broad foundational exposure to the field that will give them a solid base for more advanced courses.

0201	Toby Egan MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) TMH 0301 TMH 0102	Discussion
0202	Toby Egan MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 30) TMH 0301 KEY 0116	Discussion
0203	Toby Egan MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) TMH 0301 TMH 0225	Discussion
0204	Toby Egan MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 30) TMH 0301 TMH 0102	Discussion
0205	Toby Egan MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) TMH 0301 KEY 0116	Discussion

PLCY101 **Great Thinkers on Public Policy**

Great ideas in public policy, such as equality, efficiency, sovereignty, liberty, bureaucracy, democracy and security are explored through the lens of great thinkers. An introduction to the intellectual foundations of public policy, from ancient theories on collective public action through the more contemporary development of public policy as a discipline. This may start as early as the ancient Greek philosophers and their views on public action through contemporary classics of public policy. At the conclusion of the course, students will have read classic works in the field and will master the key themes that have dominated the intellectual debates about public policy over its history. Emphasis will be on the interdisciplinary foundations of public policy, through examining core disciplinary contributions from economics, political science, management, philosophy, and other relevant disciplines.

0101	Philip Joyce TuTh 12:30pm - 1:45pm	Seats (Total: 80) ESJ 1202	

PLCY201 **Public Leaders and Active Citizens**

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

0101	Cullen Merritt TuTh 12:30pm - 1:45pm	Seats (Total: 50) CCC 1205
0201	Brandi Slaughter TuTh 2:00pm - 3:15pm	Seats (Total: 44) TMH 0102
0301	Nancy Lineman Tu 5:00pm - 7:30pm	Seats (Total: 50) ESJ 1309

PLCY203 **Liberty and Justice for All: Ethics and Moral Issues in Public Policy**

Students will broaden their understanding of the moral dimensions of public policy as well as their own individual moral perspective. Discussions will include the ideal of a just society, and the place of liberty and equality in it, while focusing on contemporary theories of ethics and justice. It will develop students' appreciation of the ethical challenges unique to the public service sector while building their skills in ethical analysis and decision-making. We will explore the increasing ethical challenges in a world in which technology, global risks, and societal developments are accelerating faster than our understanding can keep pace. A framework for ethical decision-making underpins the course.

0101	Jennifer Littlefield TuTh 2:00pm - 3:15pm	Seats (Total: 60) SKN 0104

PLCY213 **Foundations of Nonprofit Leadership and Social Innovation**

Through discussions of contemporary trends, challenges and issues, this course provides an introduction to the nonprofit and NGO sectors, social innovation, and the leadership and management skills required to achieve social impact. The course will explore the history, theories, and roles of philanthropy, the nonprofit sector, and social innovation in societies and cultures. Students will be able to demonstrate an understanding of the process and principles of social entrepreneurship and social innovation. Additionally, the course will introduce students to topics in leadership, social innovation, resource development, community mobilization through networks, the role of policy-making in creating change, project management, and overall strategies for achieving social impact. The course will include mini hands-on learning experiences that allow them to apply key learning outcomes.

0101	Selvon Waldron M 6:00pm - 8:30pm	Seats (Total: 40) SQH 1105

0201	James Stillwell	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	SQH 1105

PLCY215 **Innovation and Social Change: Creating Change for Good**

Credit only granted for: PLCY215 or PUAF215. Formerly: PUAF215.

A team-based, highly interactive and dynamic course that provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Students in the iGIVE Program will deepen their understanding of entrepreneurship and innovation practices by creating and implementing projects or ventures that address an issue of their choosing while learning topics such as communications, project management, teamwork, leadership, fundraising, project sustainability and next steps in social change.

0101	James Stillwell, Patricia Bory	Seats (Total: 25)
	Tu 2:00pm - 3:15pm	AJC 2134
	Th 2:00pm - 3:15pm	ESJ 2101

PLCY240 **Ethical, Policy and Social Implications of Science and Technology**

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: ENES240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	HJP 2242

PLCY288A **Introduction to Public Policy Topics; 21st Century Racial Justice and Gender from the Bullhorn to the Ballot**

Introductory-level special topics focusing on a Public Policy problem or issue area.

The intersection of gender and racial justice movements of the past two decades. Students will examine the representation and complication of gender within police reform, voting rights and environmental justice movements, among others. Particular attention will be given to the role gender has played as these issues and related policies have evolved in the modern era.

0101	Charly Carter	Seats (Total: 25)
	W 1:30pm - 4:00pm	TMH 0225

PLCY288F **Introduction to Public Policy Topics; The Contested Terrain of Education Policy: The Fight for Educational Equity**

Introductory-level special topics focusing on a Public Policy problem or issue area.

Provides an introduction to K-12 education policy, policy processes, and school governance in the United States. We will examine the multiple and sometimes conflicting goals that animate education debates and the various lenses and conceptual tools that can help us understand the contested terrain of education policy. In this course, students learn the vari ous ways policies and educational systems fight or perpetuate education inequity. The course will emphasize a critical analysis of these educat ional inequities and the different policy solutions that have been implemented to respond to these inequities. We will analyze and understand the diverse approaches to solving education challenges and their impact onmarginalized communities. Using role-play with classmates and professionals, students will explore real case studies and challenges in K-12 education policy.

0101	Curtis Valentine	Seats (Total: 25)
	M 3:30pm - 6:00pm	JMZ 2122

PLCY288J **Introduction to Public Policy Topics; America Abroad:Debating US Foreign Policy Yesterday and Today**

Introductory-level special topics focusing on a Public Policy problem or issue area.

Examines historical and conceptual debates over the United States of America s role in international affairs in order to assess contemporary concerns surrounding American foreign policy. Topics covered include therole of alliances, ideology/democracy promotion, military power, and foreign intervention in creating a safe and secure world in which the United States can operate. By engaging both primary and secondary sources, students will emerge from the course able to apply historical evidence and theory to contemporary discussions, thus allowing them to directly contribute to US foreign policy debates today.

0101	Joshua Itzkowitz Shifrinson	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PLS 1117

PLCY288W **Introduction to Public Policy Topics; Global Action and Problem Solving**

Introductory-level special topics focusing on a Public Policy problem or issue area.

Today's most pressing problems do not stop at national borders. Meeting these challenges requires a range of state and non-state actors to work together. In this course, students gain familiarity with key actors in the global system and how they approach today's most intractable problems, including violent conflict, human rights, non-proliferation of weapons of mass destruction, migration, trade, climate change, and global health. How do countries, international organizations, multinational corporations, and nongovernmental organizations find ways to cooperate when their interests and capabilities sometimes differ drastically? What barriers exist that impede such cooperation? This course can be taken as a stand-alone class for those interested in issues of global cooperation and problem solving and will also prepare students in the GAPS focus area for more advanced electives.

0101	Devin Entrikin	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	JMZ 0205

PLCY300 **Governance: Collective Action in the Public Interest**

Prerequisite: PLCY100. Restriction: Must be in a major in PLCY-School of Public Policy.

Examination of societal responses to public problems, including actions by government, non-profit and private sector actors, as well as civil society. Students will examine the roles of these various actors, as well as the nature of civic responsibility. The course will examine the various stages of the policy process, asking the following questions: How does something get defined as a problem that requires a public policy response? How do we think about what the options are for this response, and how do we choose among them? What are the factors that contribute to successful policy implementation? How do we evaluate the success of public policies? These questionswill be addressed using examples of current public policy problems, and students will be expected to engage in individual and collaborative work to design responses to those problems.

0101	Joannie Tremblay-Boire TuTh 9:30am - 10:45am	Seats (Total: 40) TMH 0225
0201	Joannie Tremblay-Boire TuTh 12:30pm - 1:45pm	Seats (Total: 40) TMH 0225

PLCY301 **Sustainability**

Cross-listed with: AGNR301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Matthew Regan TuTh 3:30pm - 4:45pm	Seats (Total: 150) TMH 0301

PLCY302 **Examining Pluralism in Public Policy**

Credit only granted for: PLCY302 or PUAF302. Formerly: PUAF302.

Understanding pluralism and how groups and individuals coexist in society is an essential part of the public policy process. This course will examine the ways in which the diverse experiences of race, gender, ethnicity, class, orientation, identity, and religion impact the understanding of and equitable delivery of public policy. The examination of how identity development shapes our understanding of society and influences the decision-making process is central to students' shaping policy that is truly for the people. This course will equip students with the skills needed to analyze pluralism and draw conclusions about the application of various theories to public policy issues.

0101	Alana Hackshaw TuTh 11:00am - 12:15pm	Seats (Total: 40) TMH 0225
0201	Alana Hackshaw TuTh 2:00pm - 3:15pm	Seats (Total: 40) TMH 0225

0301	Toby Egan	Seats (Total: 40)	
	MW 3:30pm - 4:45pm	PLS 1119	

PLCY303 **Public Economics Raising and Spending the People's Money**

Prerequisite: ECON200. Restriction: Must be in a major in PLCY-School of Public Policy.

Applied course in public finance, including introductions to resource mobilization (including taxation), macroeconomic policy, key public expenditure policies, and government budgetary processes and politics. The course will build on the foundations from ECON 202 to address the specific application of public finance principles to solving public problems. The course will focus on the principles of welfare economics (including market failure), economic principles as applied to particular spending programs and tax choices, and issues and institutions involved in the allocation and management of resources both at a national and subnational level. The focus of the course is on these issues from both a domestic and global perspective.

0201	Juan Martinez Guzman	Seats (Total: 40)	
	MWF 11:00am - 11:50am	TMH 0225	

PLCY304 **Evaluating Evidence: Finding Truth in Numbers**

Prerequisite: STAT100. Restriction: Must be in a major in PLCY-School of Public Policy.

Enables students to understand the research done by others with a sufficiently skeptical eye to allow them to determine whether the findings of the research are valid given the assumptions made and methods used. This will involve, in part, thinking about the various problems in research design or conduct that could lead to faulty conclusions. It will also involve being able to differentiate between credible sources of information and those that are not objective. At the conclusion of the course, students should be able to differentiate objective evidence from political argumentation.

0101	Michael Busse	Seats (Total: 40)	
	TuTh 3:30pm - 4:45pm	TYD 0111	
	F 3:00pm - 4:00pm	TYD 0111	Discussion

PLCY306 **Public Policy Analysis in Action**

Restriction: Must have earned a minimum of 60 credits; and must be in a major in PLCY-School of Public Policy.

Utilizes our unique location in the Washington, D.C. region to create a laboratory within which to analyze local, regional, national and international policy problems. Students will be put into teams and assigned to real and timely policy cases. The course will include meetings and field trips with local leaders in the field, ideally connected to the cases. Student will then expand and apply their use of policy analysis and evaluation skills to define those problems, analyze alternative responses, devise appropriate strategies for implementation, and evaluate the success of the proposed policy and implementation. The course will conclude with team presentations to local leaders and faculty. This distinctive course will serve to prepare students for their client- based senior capstone course.

0101	Niambi Carter TuTh 2:00pm - 3:15pm	Seats (Total: 40) LEF 2166

PLCY309 **Internship in Political Institutions: State and Local**

(Perm req)

Offers students supervised internship placements in state and local political or public policy organizations.

0101	Martin Sanders Contact instructor or department for details.	Seats (Total: 50)

PLCY310 **Nonprofit Leadership and Social Innovation in Action**

Prerequisite: PLCY 213.

Furthers students understanding of topics in leadership, social innovation, resource development, community mobilization through networks, and the role of policy making in creating change. This course will further students understanding of the creation and leadership of nonprofits, social ventures, governance and boards; strategic planning and partnerships; advocacy and public policy processes; community outreach; working in teams, effective communications, and cross-sector approaches to scaling up social impact.

0101	Leslie Jefferson M 3:00pm - 5:30pm	Seats (Total: 40) TWS 0236

PLCY313 **Advocacy in the American Political System**

Credit only granted for: PUAF313, PLCY313 or PUAF359C. Formerly: PUAF359C.

Introduces students to the creation of law through the legislative process with a special focus on the Maryland General Assembly.

0101	Gerard Evans M 2:00pm - 4:30pm	Seats (Total: 100) TMH 0301

PLCY380 **Innovation and Social Change: Do Good Now**

Credit only granted for: ARHU380, BSOS388B, PLCY388D, or PLCY380. Formerly: PLCY388D.

Introduces students to the concept of social innovation while exploring the many mechanisms for achieving social impact. It is team-based, highly interactive and dynamic, and provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Deepens the students understanding of entrepreneurship and innovation practices by guiding them through the creation and implementation process as applied to a project idea of their choice.

0101	Katlin Gray TuTh 9:30am - 10:45am	Seats (Total: 35) HBK 0115

0201	Joannie Tremblay-Boire	Seats (Total: 35)
	W 6:00pm - 8:30pm	HJP 2217

PLCY388A **Special Topics in Public Policy; Child and Family Policy Impact**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Cross-listed with FMSC498P. Credit only granted for PLCY388A or FMSC498P. For poor and low-income families, federal programs such as Medicaid, Child care, SNAP and child nutrition programs are a lifeline every day. Some programs also have policies that consider more than income eligibility, such as number of hours of work, disability, and immigration status. Budget choices have a significant impact on policy intentions. Students will learn about and analyze the major federal programs and federal budgets for these policy areas; understand from data the impact of such programs and policies; and be introduced to significant advocacy effortsand considerations that shaped these policy decisions.

0101	Brandi Slaughter	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	TMH 0225

PLCY388C **Special Topics in Public Policy; Fundamentals of Cybersecurity for Policy Makers**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Jointly offered with INST467. Credit only granted for PLCY388C or INST467. Students will explore the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundationsto domestic and international policy considerations surrounding governance, privacy, risk management, and operational orchestration. It is designed for students with no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

0101	Charles Harry	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CHE 2136

PLCY388F **Special Topics in Public Policy; Contemporary Issues Under the Rule of Law**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Considers the impact of contemporary issues and public policy of the Courts through the examination of current issues under deliberation. Students will evaluate and opine on the competing legal and policy arguments in class and in papers as if they were the empowered judicial authority. Issues covered include: the growth of opinion-based news reporting versus factual news, "Fake news," and freedom of the press; voter photo ID laws, redistricting and political gerrymandering; continued racial segregation; holding public officials accountable for egregious constitutional violations; regulation of social media; and socioeconomicinequality. The course also provides a broad overview of the ways American courts function as well as interactive speakers and hands on experiences.

0101	Mariana Cordier	Seats (Total: 25)
	Tu 5:00pm - 7:30pm	JMZ 0120

PLCY388G **Special Topics in Public Policy; Cracking the Code: AI, Race, Gender & Policy Innovation for a 21st Century World**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Explores the interplay between race, gender, science, technology, and public policy. In an era where science and technologies increasingly impact various aspects of society, it is crucial to understand how these fields can reinforce or mitigate existing disparities related to race and gender. Drawing from diverse disciplines that include politics,science,and ethics, students will explore how these interconnected fields are shaped by our society, institutions, and policymaking processes. Through critical examination, students will analyze ethical, social, and policy dimensions of science and technological development.

0101	Rexanah Wyse Morrissette	Seats (Total: 25)
	M 5:00pm - 7:30pm	TYD 1102

PLCY388R **Special Topics in Public Policy; Nuclear Security Policy**

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Students are introduced to major themes and debates in the contemporary study of nuclear security, from historical, theoretical, practical, and international perspectives. This course will provide students with the technical and conceptual tools needed to understand the role nuclear weapons play in international politics. It will include a historical overview of the nuclear age, including a discussion on the evolution of nuclear strategy and the introduction of a new nuclear lexicon, the global nuclear arms race, and the development of the international nuclear nonproliferation regime. The course will cover a wide range of contemporary nuclear challenges, including nuclear security/terrorism, non-state actor nuclear challenges, international momentum behind nuclear disarmament (particularly, the evolution of the Treaty on the Prohibition of Nuclear Weapons), and the role of nuclear weapons in international politics, paying particular attention to future U.S.-Russia/U.S.-China relations, and India-Pakistan-China relations.

0101	Gregory Ramsay	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SQH 1101

PLCY399B **Directed Study in Public Policy; Policy Ambassadors**

(Perm req)

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

0101	Beatrice DeBelen	Seats (Total: 30)
	Contact instructor or department for details. Class time/details on ELMs	ONLINE

PLCY399R **Directed Study in Public Policy; Independent Research**

(Perm req)

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

Contact department for information to register for this course.

PLCY399T **Directed Study in Public Policy; Undergraduate Teaching Assistant**

(Perm req)

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

0101	Jennifer Littlefield Contact instructor or department for details.	Seats (Total: 30)

PLCY400 **Senior Capstone**

(Perm req)

Prerequisite: PLCY306. Restriction: Permission of PLCY-School of Public Policy; and must have earned a minimum of 90 credits.

Public Policy students will take the skills and knowledge gained through their curriculum and apply them through their senior capstone course. Students will work in teams on problems and issues presented by outside clients, with guidance from faculty facilitators and interaction with the clients. Each team will work with the client to address a particular problem and produce a mutually agreed upon outcome. These hands on projects will advance students' understanding of the analytical, leadership, communication and problem solving skills necessary to address today's policy problems while allowing them to gain professional level experience that could contribute to their success in their post UMD endeavors. The course will conclude with an event that allows all teams to present their findings and outcomes to their client while being evaluated by faculty and public policy professionals.

0101	Patrina Clark W 5:00pm - 7:30pm	Seats (Total: 26) TLF 1103
0201	Martin Sanders Tu 6:00pm - 8:30pm	Seats (Total: 27) TMH 0102
0301	Paul Brown Tu 3:30pm - 6:00pm	Seats (Total: 20) TMH 0102

PLCY401 **Contemporary Issues in Public Policy**

Restriction: Must have earned a minimum of 90 credits.

An integrative course that allows policy students to explore the complexities of the policy-making process from the perspective of specific policy topics. They will learn about and discuss subject- based issues in a seminar format led by faculty and policy experts. Site visits to federal agencies, guest speakers, and round table sessions ensure that students receive a variety of real-world perspectives on their chosen policy area.

0101	Tracy Thompson TuTh 5:00pm - 6:15pm *Criminal Justice Policy*	Seats (Total: 20) MMH 1304	
0201	Catherine Worsnop TuTh 9:30am - 10:45am *Examining global disease outbreaks and the politics driving how countries respond to them.*	Seats (Total: 20) JMZ 0103	
0401	Margaret Brindle TuTh 12:30pm - 1:45pm *International Development*	Seats (Total: 20) PLS 1158	

PLCY488A **Advanced Special Topics in Public Policy; Design and Democracy**

Advanced special topics for upper level students focusing on topics related to Public Policy.

Cross-listed with ARTT489J and GVPT368O. Credit only granted for ARTT489J, GVPT368O, or PLCY488A.

0101	Hannah Smotrich MW 3:00pm - 5:30pm	Seats (Total: 15) ASY 2322	Lab

PLCY610 **Quantitative Aspects of Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY610 or PUAF610. Formerly: PUAF610.

Introduces statistical methods needed for evaluating and choosing among policy options. Topics include probability; decision-making under uncertainty; the organization, interpretation, and visual display of complex data; prediction and inferences about causality; hypothesis testing; and linear and multiple regression. Develops analytical skills and the ability to apply theory to complex, real-world problems.

0101	Michael Busse Th 7:00pm - 9:30pm *This section has optional online discussion sessions, Fridays, 9:15am - 10:45am.*	Seats (Total: 35) TYD 1114

PLCY620 **Political Analysis**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY620 or PUAF620. Formerly: PUAF620.

Examination of politics as a process for allocating scarce resources among claimants for public benefits. Comparision of the allocative model of politics with other distributive processes, such as markets. Comparison of the model with behavior of different political institutions, such as Congress and the presidency. Study of politics as a process with distinctive concepts of rationality. The translation of voter and interest group preferences into public choices. The impact of political decisions on competing constituencies.

Contact department for information to register for this course.

PLCY630 **Normative and Political Dimensions of Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY630 or PLCY688E. Formerly: PLCY688E.

Explores the normative and political dimensions of governance--or policymaking--at the domestic (focusing on the US) and global levels. Policymaking involves a myriad of public and private actors at the local, national, transnational, and global levels that have competing aims and values. Their interaction produces formal and informal policies that affect the international order, interstate relations, subnational dynamics, and individuals. Drawing on theory from multiple disciplines and case examples, the course examines governance at these interrelated levels. Students learn core concepts, debates, and actors involved in policy making, develop tools to identify the causes and consequences of different policies, and build skills to influence public governance. Students also critically analyze how the actors, institutions, and scholarship covered perpetuate systemic racism and other inequities based on gender, class, ethnicity, sexual orientation, religion, dis/ability, etc.

0101	John Ronquillo W 4:15pm - 6:45pm	Seats (Total: 25) TMH 0225

PLCY631 **Governance: Leadership, Management and Accountability**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY631 or PLCY688G. Formerly: PLCY688G.

Emphasizes that regardless of technical specialization, public policy practitioners are required to lead people and organizations, manage resources and processes, and be held accountable for their actions. Provides knowledge, insights, skills, and abilities to successfully participate in and contribute to the policy process and lead and manage in line with democratic norms and values. Shows the need to pursue efficiency, effectiveness, and speed while also prioritizing justice, equity, procedural fairness, and due process. Focuses on the "people" side of organizational life, ethical decision-making, and the ability to communicate effectively.

0101	Elizabeth Duke M 4:15pm - 6:45pm	Seats (Total: 22) TMH 0102
0201	Elizabeth Duke Tu 9:15am - 11:45am	Seats (Total: 22) TMH 0102

PLCY640 **Microeconomic and Policy Analysis**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY640 or PUAF640. Formerly: PUAF640.

Applies intermediate microeconomic theory to public policy issues: resource allocation by firms and consumers; the response of economic agents to changes in incentives; market allocations in competitive and non-competitive environments; and market failures and government remedies. Uses extended case studies of particular issues in such areas as the environment (acid rain), international trade (tariffs), industry regulation (cable TV), and the provision of public goods (highways).

0101	Thomas Spreen	Seats (Total: 30)
	Th 4:15pm - 6:45pm	JMZ 2207
	This section has optional online discussion sessions, Fridays, 11:00am - 12:30pm.	

PLCY641 **Macroeconomics and Policy Analysis**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY641 or PUAF641. Formerly: PUAF641.

Studies the behavior of the economy as a whole: the level of national income, unemployment, and inflation; the vulnerability of the U.S. economy to external influences; possible federal influence over the level of economic activity; and the consequences for prices, employment and the U.S. trade deficit. Also examines possible U.S. policy responses to widespread debt crises in developing countries.

0101	John Green	Seats (Total: 20)
	W 1:30pm - 4:00pm	HBK 0125
	This section has optional online discussion sessions, Fridays, 11:00am - 12:30pm.	

PLCY650 **Moral Dimensions of Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY650 or PUAF650. Formerly: PUAF650.

Explores the moral issues involved in public policy questions; the limits and usefulness of decision-making tools; problems of choosing, justifying and using criteria to judge a program's success and suitability; ethichal issues involving the welfare state and income distribution; and possible obligations beyond one's political community and generation.

Contact department for information to register for this course.

PLCY670 **Public Budgeting & Financial Management**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC670 or PUAF670. Formerly: PUAF670.

Covers how governments raise, spend, borrow, and manage public funds. Reviews federal,state, and local budget processes and introduces analytical techniques including basic spreadsheet skills, evaluating alternative revenue sources, revenue and expenditure forecasting, cost allocation, capital budgeting, cost-benefit analysis, discounting and present value, bond analysis, cash management and intergovernmental finance.

0101	Juan Martinez Guzman Tu 1:30pm - 4:00pm	Seats (Total: 30) KEY 0102
0201	Philip Joyce W 7:00pm - 9:30pm	Seats (Total: 30) ONLINE

PLCY680 **Examining Social Identity and Pluralism in Public Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY680 or PLCY699D. Formerly: PLCY699D.

Understanding how groups and individuals develop and coexist in society is an essential part of public policy. Using the classroom as a laboratory, students will explore identity development and how the intersections of race, class, gender, sexual orientation, and other identities shape perceptions that inform decision-making and policy development. From historical scholars to current day movement leaders, this course equips students with tools necessary to critically analyze pluralism, power, and identity; and the skills needed to shape meaningful and equitable public policy and working and civic environments for all.

0101	Patricia Bory, Toby Egan, Nina Harris M 4:15pm - 6:45pm	Seats (Total: 25) ESJ 1309

PLCY688B **Topics in Public Policy; Economics of Education**

Special topics in Public Policy.

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Cross-listed with TLPL670. Credit only granted for TLPL670 or PLCY688B. An introduction to the application of economic principles to the study of education policy. The course content revolves around issues of efficiency, equity, and freedom of choice. Specific attention is devoted to school finance litigation and reform, practices for raising and allocating resources, and education productivity issues.

0101	Jing Liu W 4:15pm - 7:00pm	Seats (Total: 20) TWS 0223

PLCY688F **Topics in Public Policy; State, Local & Non-Profit Financial Management**

Special topics in Public Policy.

0101	Nathan Dietz W 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
	Restricted to PLCY majors or permission of instructor.	

PWL1	Nathan Dietz W 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
	Must be in the Nonprofit Management and Leadership (GC), Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PLCY688X **Topics in Public Policy; Human Dignity**

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Chloe Schwenke M 1:30pm - 4:00pm	Seats (Total: 25) HBK 0123

PLCY689A **Public Policy Topics**

Special Topics in Public Policy.

Contact department for information to register for this course.

PLCY689E **Public Policy Topics; Program Evaluation and Cost-Benefit Analysis**

Special Topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0101	Douglas Call M 4:15pm - 6:45pm	Seats (Total: 30) TMH 0225

PLCY689L **Public Policy Topics; Science and Technology Policy**

Special Topics in Public Policy.

Jointly offered with PHYS798J. Credit only granted for PLCY689L or PHYS7 98J.

0101	Rosina Bierbaum, Sylvester Gates Tu 7:00pm - 9:30pm	Seats (Total: 34) TMH 0225
PCM1	Sylvester Gates, Rosina Bierbaum Tu 7:00pm - 9:30pm	Seats (Total: 5) TMH 0225
	Must be in Science, Technology, and Innovation (GC). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PLCY689X **Public Policy Topics; Performance Management and Leadership**

Special Topics in Public Policy.

For PLCY majors or permission of instructor.

0101	Mark Hubbard W 7:00pm - 9:30pm	Seats (Total: 15) TMH 0102

PLCY689Y **Public Policy Topics; Nonprofit Fundraising**

Special Topics in Public Policy.

0101	Ebonie Johnson Cooper M 4:15pm - 6:45pm *Restricted to PLCY Majors or permission of instructor.*	Seats (Total: 5) ONLINE
PWL1	Ebonie Johnson Cooper M 4:15pm - 6:45pm *Must be in the Nonprofit Management and Leadership (GC), Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 10) ONLINE

PLCY689Z **Public Policy Topics; Strategic Management for NonProfit and Public Organizations**

Special Topics in Public Policy.

0101	Robert Sheehan Tu 6:30pm - 9:00pm *Restricted to PLCY majors or permission of instructor.*	Seats (Total: 5) ONLINE
PWL1	Robert Sheehan Tu 6:30pm - 9:00pm *Must be in the Nonprofit Management and Leadership (GC), Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 10) ONLINE

PLCY692 **Leadership Principles and Practices**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY692 or PUAF692. Formerly: PUAF692.

This course will introduce leadership principles and practices to students by focussing on the theory of leadership, different leadership themes and skills, and discussions with practitioners.

Contact department for information to register for this course.

PLCY698A **Selected Topics in Public Affairs; Poverty Measurement and Alleviation**

Special topics that arise in public policy.

0101	Kathryn Edwards Tu 1:30pm - 4:00pm	Seats (Total: 25) SQH 1103

PLCY698C **Selected Topics in Public Affairs; Intelligence and Policy: Executive, Congressional and Public Dimensions**

Special topics that arise in public policy.

Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.

0101	Ann White M 4:15pm - 6:45pm	Seats (Total: 22) JMZ 0120

PLCY698D **Selected Topics in Public Affairs; Social Entrepreneurship**

Special topics that arise in public policy.

0101	Bethany Henderson Th 6:30pm - 9:00pm	Seats (Total: 5) ONLINE
	Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy.	
CA01	Bethany Henderson Th 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	
PWL1	Bethany Henderson Th 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
	Must be in the Nonprofit Management and Leadership (GC), Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PLCY698E **Selected Topics in Public Affairs; Proseminar in Normative Public Policy**

Special topics that arise in public policy.

0101	Robert Sprinkle Th 4:15pm - 6:45pm	Seats (Total: 20) TMH 0102

PLCY698R **Selected Topics in Public Affairs; Developmental Challenges**

Special topics that arise in public policy.

Restricted to PLCY Majors or permission of instructor.

0101	Mario Picon M 4:15pm - 6:45pm	Seats (Total: 25) JMZ 1124

PLCY698T **Selected Topics in Public Affairs; Managing Across Sectors**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699F **Selected Topics Public Policy; Ethics of Public Administration**

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

Contact department for information to register for this course.

PLCY699G **Selected Topics Public Policy; Leadership in Groups and Organizations**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699K **Selected Topics Public Policy; Civil Conflict**

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

0101	Alec Worsnop Th 9:15am - 11:45am	Seats (Total: 25) TMH 0102

PLCY699M **Selected Topics Public Policy**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699O **Selected Topics Public Policy; 21st Century Policy Challenges**

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699Z **Selected Topics Public Policy; Climate and Energy Policy**

Special topics that arise in public policy.

For PLCY Majors or permission of instructor.

0101	Nathan Hultman M 1:30pm - 4:00pm	Seats (Total: 20) TMH 0102

PLCY711 **Public Management and Leadership**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY711 or PUAF711. Formerly: PUAF711.

Reviews the managerial, political, and ethical problems faced by public sector managers and leaders, including setting an organization's goals, obtaining and protecting a program mandate, designing a service delivery system and implementing a new program.

Contact department for information to register for this course.

PLCY720 **International Security Policy**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY720 or PUAF720. Formerly: PUAF720.

Reviews the principal features of international security as currently practiced. Traces the evolution of contemporary policy beginning with the initiation of nuclear weapons programs during World War II. Particular emphasis is given to experience of the United States and Russia, since the historical interaction between these two countries has disproportionately affected the international security conditions that all other countries now experience.

0101	Nancy Gallagher	Seats (Total: 18)
	Tu 1:30pm - 4:00pm	TMH 1301

PLCY742 **Environmental Ethics**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC742 or PUAF742. Formerly: PUAF742.

Analyzes issues such as the relation between human beings and nature from the perspectives of the science, history, philosophy, and religion. Considers the bases for policies such as environmental regulation, public lands, and international conventions with respect to the environment.

0101	Thomas Hilde	Seats (Total: 20)
	Th 7:00pm - 9:30pm	TMH 0102

PLCY745 **Human Health and Environmental Policy**

Credit only granted for: PLCY745 or PUAF745. Formerly: PUAF745.

Reviews the major human physiological systems and their integrated toxicological functions; considers key bodily defenses; and discusses classic, emerging, and ambiguous risks; in all ecological context. Applies to scientific controversy, the methods of policy formation, such as risk analysis, social-cost analysis, "outcomes" analysis, and decision analysis, all in political-economic context.

0101	Robert Sprinkle	Seats (Total: 24)
	W 4:15pm - 6:45pm	TMH 0102

PLCY752 **Managing Differences:Resolving Conflict and Negotiating Agreements**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY752 or PUAF752. Formerly: PUAF752.

Enhances the student's negotiation and leadership skills for managing differences between individuals and groups. Students study the nature of conflict, learn how to handle two and multiparty conflicts, exerting leadership where there are no hierarchy leaders, and explore the impact of facilitators and mediators on the negotiating process. Blends skill building exercises and theory discussions about the behavior of groups and individuals in groups to understand negotiation dynamics.

Contact department for information to register for this course.

PLCY780 **The American Foreign Policy-Making Process**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY780 or PUAF780. Formerly: PUAF780.

Survey and analysis of the governmental institutions and processes which shape U.S. global engagement on national security and international economic issues. Particular emphasis is given to executive-congressional relations and the broader domestic roots of foreign policy.

0201	Joshua Itzkowitz Shifrinson	Seats (Total: 20)
	Tu 4:15pm - 6:45pm	SKN 1115

PLCY782 **International Development Economics**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PUAF698U, PUAF782 or PLCY782. Formerly: PUAF698U and PUAF782.

Examines key current economic and policy issues for developing and transition economies. Topics include inflation stabilization, fiscal policy, selected trade issues, dealing with international capital flows, the role of multilateral organizations, such as the International Monetary Fund and the World Bank, and issues relating to saving, investment and growth.

0101	Susan Parker	Seats (Total: 40)
	W 1:30pm - 4:00pm	TMH 0102
	This section has optional online discussion sessions, Fridays, 1:30pm - 3:00pm.	

PLCY790 **Project Course**

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY790 or PUAF790. Formerly: PUAF790.

Students work at a sponsoring government agency or private firm researching problem of interest to sponsor and relevant to concentration. Emphasis on problem definition, organizing information, and both oral and written presentation of results.

0101	Douglas Call	Seats (Total: 15)
	M 7:00pm - 9:30pm	TMH 1301
	Evaluation-related social policy projects.	

0201	Niambi Carter Th 4:15pm - 6:45pm	Seats (Total: 15) TMH 1301
	Social policy projects. Faculty expertise in immigration/migration and race/gender policy.	
0301	David Backer Th 1:30pm - 4:00pm	Seats (Total: 15) TMH 2202
	International development and security projects.	
0311	Anand Patwardhan Th 1:30pm - 4:00pm	Seats (Total: 15) TMH 1301
	Environmental and Energy projects.	
0401	Paul Brown W 1:30pm - 4:00pm	Seats (Total: 15) TMH 1301
	Federal policymaking and policy advocacy, civic engagem ent, democracy reform projects.	
0521	Angela Bies Tu 4:15pm - 6:45pm	Seats (Total: 15) TMH 1301
	Evaluation, management, leadership, non-profit.	

PLCY798A **Readings in Public Policy**

(Perm req)

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798B **Readings in Public Policy**

(Perm req)

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798D **Readings in Public Policy; Writing for Academic Publication**

(Perm req)

Guided readings for discussions on public policy.

0101	Katrina Walsemann Th 3:30pm - 4:30pm	Seats (Total: 10) TMH 0201

PLCY798G **Readings in Public Policy; Impact Evaluation for Education and Public Policy**

Guided readings for discussions on public policy.

Prerequisite: Knowledge of multivariate regression and prior experience with statistical programming software (e.g., Stata). TLPL765 or permission from instructor. Restriction: Must be in a major in PLCY-School of Public Policy; or per mission of PLCY-School of Public Policy. Cross-listed with TLPL766. Credit only granted for TLPL766 or PLCY798G. Students will learn about and practice using a variety of quantitative research methods that allow for causal inferences and can be applied to estimate the impact of policies or programs in education and other policy sectors.

0101	Francisco Lagos Marin Th 4:15pm - 7:00pm	Seats (Total: 20) JMZ 1122

PLCY798P **Readings in Public Policy; Data Analysis for Policy Makers**

Guided readings for discussions on public policy.

0101	Charles Harry M 1:30pm - 4:00pm	Seats (Total: 20) TMH 0225

PLCY798T **Readings in Public Policy; Sustainable Development, Democracy and Human Rights in Peru**

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798Y **Readings in Public Policy; Nonprofit Management and Leadership**

Guided readings for discussions on public policy.

0101	Jeffrey Franco W 4:15pm - 6:45pm *Restricted to PLCY majors or permission of instructor.*	Seats (Total: 10) ONLINE
PWL1	Jeffrey Franco W 4:15pm - 6:45pm *Must be in the Nonprofit Management and Leadership (GC), Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 10) ONLINE

PLCY898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PLCY899 **Doctoral Dissertation Research**
(Perm req)

Contact department for information to register for this course.

PLSC Plant Sciences Spring 2024

PLSC110 **Introduction to Horticulture**

Credit only granted for: PLSC100 or PLSC110 and PLSC111. Formerly: PLSC100.

An overview to the art and science of horticulture. Relationships between plant science and plant production, the use of horticultural plants and plant stress as influenced by cultural practices.

0101	Diana Cochran TuTh 11:00am - 12:15pm	Seats (Total: 161) ESJ 2208	

PLSC111 **Introduction to Horticulture Laboratory**

Corequisite: PLSC110 or permission of the Department of Plant Science and Landscape Architecture.

The goal of this course is to expand your knowledge of the growth and development of horticultural crops. An integrated understanding of horticulture will come from laboratory experiments and field trips. This course is designed to complement lecture material from PLSC 110.

Students must pay a $50.00 lab materials fee.

0101	Diana Cochran M 9:00am - 12:20pm	Seats (Total: 24) PLS 1153	Lab
0102	Diana Cochran M 1:00pm - 4:20pm	Seats (Total: 24) PLS 1153	Lab
0103	Diana Cochran W 9:00am - 12:20pm	Seats (Total: 24) PLS 1153	Lab
0104	Diana Cochran W 1:00pm - 4:20pm	Seats (Total: 24) PLS 1153	Lab
0105	Diana Cochran Th 12:30pm - 3:50pm	Seats (Total: 24) PLS 1153	Lab

PLSC250 **Lawns in the Landscape: Environmental Hero or Villain?**

Cross-listed with ENSP250. Credit only granted for: ENSP250 or PLSC250.

Examination of the lawn as an element in the anthropogenic landscape and its influence on global warming, regional air and water quality, ecological diversity, mammalian pesticide exposure and consumptive water use. Demographic and socioeconomic factors are examined in the context of being predictors of landscape aesthetic desires and lawn management behaviors. Policies that incentivize lawn alternatives or changes in lawn management behavior are discussed.

0101	Mark Carroll MW 4:00pm - 5:15pm	Seats (Total: 25) SYM 0209	

PLSC254 **Woody Plants for Mid-Atlantic Landscape II**

Prerequisite: Minimum grade of C- in PLSC110, PLSC111, and PLSC253; or permission of instructor.

A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on introduced and evergreen plant materials.

0101	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab
0102	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1130 PLS 1140	 Lab

PLSC271 Plant Propagation

Prerequisite: Minimum grade of C- in PLSC110 and PLSC111; or minimum grade of C- in BSCI170 and BSCI171.

A study of the principles and practices in the propagation of plants.

0101	Gary Coleman MW 3:00pm - 3:50pm M 4:00pm - 5:50pm	Seats (Total: 12) PLS 1117 PLS 1117	 Lab
0102	Gary Coleman MW 3:00pm - 3:50pm W 4:00pm - 5:50pm	Seats (Total: 12) PLS 1117 PLS 1117	 Lab

PLSC303 Global Food Systems

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171; or students who have taken courses with comparable content may contact the department.

An introduction to the global food system and its agricultural, biophysical, and socioeconomic domains. The problems and potentials for increasing world food supply based on current agronomic knowledge. Emphasis on international aspects of food crop production as its interrelationships with people and the environment in the developing world.

0101	Sean Sharp TuTh 12:30pm - 1:45pm *Restricted to 0101B majors only.*	Seats (Total: 10) PLS 1164	
0102	Sean Sharp TuTh 12:30pm - 1:45pm *Restricted to non-0101B majors, all other majors allowed.*	Seats (Total: 10) PLS 1164	

PLSC388 **Honors Thesis Research**

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 10)	

PLSC399 **Special Problems in Plant Science**

(Perm req)

Research projects in Plant Science including field, greenhouse, laboratory, studio and/or library studies. Research is conducted under the direction of a faculty member.

Contact department for information to register for this course.

PLSC400 **Plant Physiology**

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in PLSC201; and minimum grade of C- in CHEM231 and CHEM232; or minimum grade of C- in CHEM237. Cross-listed with: BSCI442. Credit only granted for: BSCI442 or PLSC400.

An in-depth examination of the unique molecular and physiological principles necessary to understand how plants grow and respond to the environment at the cellular and organismal levels. Plants evolved unique metabolism and survival strategies, so students should be prepared to enter a world that may be new to them.

0101	Daniel Rodriguez Leal, Jose Feijo MWF 1:00pm - 1:50pm Tu 9:00am - 12:00pm	Seats (Total: 10) PLS 1130 PLS 1153	 Lab
0102	Jose Feijo, Daniel Rodriguez Leal MWF 1:00pm - 1:50pm Tu 12:30pm - 3:30pm	Seats (Total: 24) PLS 1130 PLS 1153	 Lab
0103	Jose Feijo, Daniel Rodriguez Leal MWF 1:00pm - 1:50pm Tu 4:00pm - 7:00pm	Seats (Total: 20) PLS 1130 PLS 1153	 Lab

PLSC401 **Pest Management Strategies for Turfgrass**

Prerequisite: PLSC305.

Interdisciplinary view of weed, disease, and insect management from an agronomy perspective. Plant responses to pest invasion, diagnosis of pest-related disorders, and principles of weed, disease and insect suppression through cultural, biological and chemical means are discussed.

0101	Geoffrey Rinehart, Fereshteh Shahoveisi	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	PLS 1164	

PLSC411 Plant Genetics

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171.

An introduction to genetic principles and technologies in plants, centered on linking phenotype to genotype. Topics include Mendelian inheritance of single and complex traits, epigenetics, population genetics and plant breeding. Examples on creating and mapping genetic mutations in both model plants and non-model crops are discussed. Current genetic and genomic approaches are highlighted, such as genome engineering and reprogramming, TILLING, and genome-wide association mapping.

0101	Vijay Tiwari, Adam Schoen	Seats (Total: 25)	
	MWF 11:00am - 11:50am	PLS 1146	

PLSC434 The Quest for Color

Credit only granted for: PLSC434 or HONR218R. Formerly: HONR218R.

Finding sources of color in nature has motivated mindful inquiry and technical innovation across cultures. Yet, the quest for new colors has been both a result of and an excuse for colonization, appropriation of indigenous knowledge, and enslavement. When natural dyestuffs were largely replaced by synthetic dyes derived from coal tar in the late 1800s, color development posed new ecological and cultural challenges. In spite of these threats, practitioners worldwide have maintained their traditional methods without exploitation or petroleum products. This course integrates the history and chemistry of dye materials from plants and insects with hands-on practice in sustainable color creation. Students will hone the practical skills needed to source and process foraged dye materials, and apply them sustainably to fibers. Via this scientific process students will gain insight into the benefits of a naturally sourced approach to color and to life.

0101	Maile Neel	Seats (Total: 12)	
	Class time/details on ELMs	ONLINE	
	F 1:00pm - 1:50pm	PLS 0123	
	F 2:00pm - 5:00pm	PLS 0123	Lab

PLSC452 Environmental Horticulture

Prerequisite: Minimum grade of C- in PLSC110 and PLSC111; or minimum grade of C- in PLSC112 and PLSC113; and minimum grade of C- in PLSC253 and PLSC254.

Environmental horticulture principles used in the establishment and maintenance of plant materials in residential and commercial landscapes will be addressed. The effect of soil conditions, environmental factors, and commercial practices will be discussed in relation to the growth and development of newly-installed plant materials. Field diagnostics will be used by students to assess significant problems of plant decline. Environmental sustainability will be combined with current commercial practices of storm water management, nutrient management, and irrigation management to achieve an integrated approach to plant management.

Students must pay a $60.00 lab fee.

0101	Diana Cochran	Seats (Total: 20)	
	MW 9:00am - 9:50am	PLS 1115	
	W 10:00am - 12:50pm	PLS 1115	Lab

PLSC460 **Application of Knowledge in Plant Sciences**

(Perm req)

Prerequisite: Minimum grade of C- in PLSC110 and PLSC111; or minimum grade of C- in PLSC112 and PLSC113; or minimum grade of C- in PLSC201; or permission of instructor. Recommended: ENGL393 and ENST200; and (PLSC389 or PLSC399). Restriction: Senior standing or higher.

A capstone course based on interactions with plant science professionals and student-led class discussions. Students will apply their knowledge and experience to practical issues in the discipline, further develop critical thinking ability, and enhance their communication, teamwork, and professional skills. Topics will include nutrient management, integrated pest management, plant interactions with urban and rural ecosystems, planning of public grounds, plant biotechnology, and teaching skills.

0101	William Phillips	Seats (Total: 30)
	W 2:00pm - 2:50pm	PLS 1119
	F 2:00pm - 4:50pm	PLS 1119

PLSC489W **Special Topics in Plant Science; Plant-Microbe Associations**

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Understanding the diverse relationships between plants and their associated microbes is important for crop protection and food security. A comparative analysis of the ecology, physiology and molecular genetics of plant - microbe interactions along with their impact on society and the surrounding ecosystem. Students will learn and gain an understanding of various microbiomes and their impact on plant growth, pathogenic strategies used to overcome plant immune systems and derive nutrients from host plants, the molecular mechanisms used by plants to recognize and respond to invading pathogens, symbiotic relationships between plants and microbes, prospects of genetic engineering of plants for disease resistance.

0101	James Culver, Shunyuan Xiao	Seats (Total: 10)
	TuTh 9:30am - 10:45am	PLS 1113

PLSC608T **Research Methods; Supervised Teaching**

(Perm req)

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

4401	William Phillips Contact instructor or department for details.	Seats (Total: 5)	
7501	Wendy Peer Contact instructor or department for details.	Seats (Total: 5)	

PLSC618 **Advances in Research; Critiquing Primary Plant Science Literature**

Discussion of advances in plant science research based on classic and current scientific literature.

0101	James Culver Tu 3:30pm - 4:45pm	Seats (Total: 15) PLS 1164	

PLSC619 **Seminars in Plant Science and Landscape Architecture**

Enhancement of student learning and enrichment of student curriculum for the Plant Science Graduate Program through a combination of research seminar attendance and post-seminar discussion. Research seminars will be given by prominent scientists in the field of plant sciences and post-seminar discussions will be facilitated by the instructor along with student discussion leaders.

0101	Vijay Tiwari, Colby Silvert M 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 20) PLS 2107 ONLINE	 Discussion

PLSC689W **Special Topics; Plant-Microbe Associations**

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Understanding the diverse relationships between plants and their associated microbes is important for crop protection and food security. A comparative analysis of the ecology, physiology and molecular genetics of plant - microbe interactions along with their impact on society and the surrounding ecosystem. Students will learn and gain an understanding of various microbiomes and their impact on plant growth, pathogenic strategies used to overcome plant immune systems and derive nutrients from host plants, the molecular mechanisms used by plants to recognize and respond to invading pathogens, symbiotic relationships between plants and microbes, prospects of genetic engineering of plants for disease resistance.

0101	James Culver, Shunyuan Xiao TuTh 9:30am - 10:45am	Seats (Total: 10) PLS 1113	

PLSC799 **Master's Thesis Research**
Contact department for information to register for this course.

PLSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PLSC899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

PORT Portuguese Spring 2024

PORT203 **Intensive Intermediate Portuguese**

Prerequisite: PORT103 or PORT104; or must have appropriate World Language Placement Test (WLPT) score. Credit only granted for: PORT203 or PORT204. Formerly: PORT204.

Covers speaking, reading, writing, listening, and culture of Portuguese-speaking world.

0101	Barbara Zocal Da Silva	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	JMZ 1117
	W 11:00am - 11:50am	WDS 1102

PORT228L **Selected Topics in Latin American Literature and Society; Culture of the Lusophone World**

(Perm req)

Variable cultural studies topics on literature and society in contemporary Latin America. Taught in English.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Chicago, but you enroll and receive credit for it at Maryland. Prereq: At least one year of Portuguese language instruction; ability to read, write, speak, and listen at the intermediate level.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 3, 2024 - March 8, 2024	
	MWF 11:30am - 12:20pm	ONLINE

PORT386 **Experiential Learning**

(Perm req)

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department; and junior standing or higher.

Contact department for information to register for this course.

PORT388G **Special Topics in Brazilian Studies; Graphic Novels: Discussing Latin America**

Exposes students to textual, visual and aural products to explore how Brazil has been shaped from within and abroad. Focuses on the broad meaning and impact on Brazilian culture and social formation. Taught in English.

0101	Barbara Zocal Da Silva	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 1124

PORT399 **Independent Study in Portuguese**

(Perm req)

Specific readings in literature under the supervision of a faculty member of the department.

Contact department for information to register for this course.

PORT405 **Portuguese for Spanish Speakers**

Restriction: Must have native or acquired fluency in Spanish.

Intensive basic grammar, reading and auditory comprehension. Native or acquired fluency in Spanish required.

0101	Barbara Zocal Da Silva TuTh 3:30pm - 4:45pm	Seats (Total: 15) JMZ 1124	

PORT699 **Independent Study of Portuguese**

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

PSYC Psychology Spring 2024

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available. The Department of Psychology enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

PSYC100 **Introduction to Psychology**

A basic introductory course intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

Discussion sections do not meet until after first lecture. Research requirement: may involve participation in research.

Click here for course syllabus.

0101	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1236	 Discussion
0102	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	 Discussion

0103	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 30) BRB 1101 ONLINE HBK 0123	Discussion
0104	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1228	Discussion
0105	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion
0106	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1236	Discussion
0107	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion
0108	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 30) BRB 1101 ONLINE HBK 0123	Discussion
0109	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1228	Discussion
0110	Benjamin Jones W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE BPS 1238	Discussion

0201	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0202	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0203	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0204	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0205	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0206	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0207	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion
0208	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 30) BRB 1101 ONLINE ONLINE	 Discussion

0209	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) BRB 1101 ONLINE ONLINE	Discussion
0210	Abigail Nicolas Tu 3:30pm - 5:10pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 30) BRB 1101 ONLINE ONLINE	Discussion
0301	Dirk Parham MW 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 50) ONLINE ONLINE	Discussion
0501	Joseph Barnet Tu 2:00pm - 3:40pm W 12:00pm - 12:50pm	Seats (Total: 30) JMZ 0220 BPS 1232	Discussion
0502	Joseph Barnet Tu 2:00pm - 3:40pm W 1:00pm - 1:50pm	Seats (Total: 30) JMZ 0220 BPS 1232	Discussion
0503	Joseph Barnet Tu 2:00pm - 3:40pm W 2:00pm - 2:50pm	Seats (Total: 30) JMZ 0220 BPS 1232	Discussion
0504	Joseph Barnet Tu 2:00pm - 3:40pm W 3:00pm - 3:50pm	Seats (Total: 30) JMZ 0220 BPS 1232	Discussion
0505	Joseph Barnet Tu 2:00pm - 3:40pm W 4:00pm - 4:50pm	Seats (Total: 30) JMZ 0220 BPS 1232	Discussion

PSYC123 **The Psychology of Getting Hired**

Restriction: Must not be in a Robert H. Smith School of Business degree program. Additional information: Cannot be used in place of BMGT367 toward a degree program in the Robert H. Smith School of Business.

Designed to introduce students to the science behind the hiring process and to prepare individuals with the academic and practical training required. Together we will explore psychological principles that influence the selection process and how individuals can apply them for the competitive edge that makes others Fear the Turtle!

0101	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0201	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0301	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	

PSYC200 **Statistical Methods in Psychology**

Prerequisite: PSYC100; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH136, or MATH140).

A basic introduction to quantitative methods used in psychological research.

Restricted to PSYC, ENSP, BSCI, and NEUR majors.

0101	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1234	 Discussion
0102	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1234	 Discussion
0103	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 11:00am - 11:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion
0104	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion
0105	Benjamin Jones TuTh 8:00am - 9:15am Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 30) BPS 1250 ONLINE BPS 1238	 Discussion

0201	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 9:00am - 9:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1228	 Discussion
0202	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 10:00am - 10:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1228	 Discussion
0203	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 11:00am - 11:50am	Seats (Total: 30) BPS 1250 ONLINE BPS 1234	 Discussion
0204	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 1:00pm - 1:50pm	Seats (Total: 30) BPS 1250 ONLINE BPS 1234	 Discussion
0205	Benjamin Jones TuTh 9:30am - 10:45am Class time/details on ELMs M 2:00pm - 2:50pm	Seats (Total: 30) BPS 1250 ONLINE BPS 1234	 Discussion

PSYC207 **Collective Behavior and Decision Making in Human and Animal Groups**

Prerequisite: NEUR200, PSYC304 or PSYC221. Recommended: PSYC200 or equivalent statistics course. Credit only granted for: PSYC207 or PSYC307. Formerly: PSYC207.

Overview of the fundamental principles underlying the organization of animal societies, mathematical models describing these phenomena, and applications to human societies and decision-making. Students will engage in discussions of case studies, analyze and evaluate mathematical simulations, and apply what they have learned from animal groups to practice solving problems currently facing human society.

Restricted to students in PSYC and NEUR majors only.

0101	Amanda Chicoli MW 3:30pm - 4:45pm	Seats (Total: 50) BPS 1236	

PSYC210 **Personality and Temperament: Developmental Origins, Brain Bases, and Clinical Implications**

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

What is known about what makes each of us unique? How do these differences contribute to enduring differences in health & wealth? We will review recent research in humans and non-humans aimed at understanding the psychological & biological mechanisms underlying stable individual differences in personality. We will discuss the phylogenetic and ontogenetic origins of temperament, measurement issues, fundamental dimensions of personality across the lifespan, neurobiological substrates of temperament/personality, mechanisms contributing to stability and change, implications for psychopathology, & broader implications for public/macroeconomic policy.

Restricted to PSYC students only.

0101	Yi Wei TuTh 11:00am - 12:15pm	Seats (Total: 60) ATL 2324	

PSYC221 **Social Psychology**

Prerequisite: PSYC100.

The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, personal perception, interpersonal attraction, and group behavior.

0101	Linda Zou MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 150) BPS 1250 BPS 1250	 Discussion
0201	Joseph Barnet TuTh 11:00am - 12:15pm	Seats (Total: 150) BPS 1250	

PSYC234 **Living the Good Life: The Psychology of Happiness**

Credit only granted for: PSYC234 or PSYC289D. Formerly: PSYC289D.

What are the secrets to living a happy life? Can happiness be found within the context of war, a depressed economy, violence and other major stressors? Are some people born happier than others? This course will teach you the scientific process that psychologists use to study happiness (and related emotional variables) and give you the opportunity to practice applying that process in a number of ways. You will learn how we (a) gather and critically evaluate research findings in the existing literature, (b) integrate those findings into coherent and testable theories, (c) design and conduct valid scientific research that tests those theories and extends our knowledge, and (d) effectively communicate our theories and findings to a wide range of audiences. The result of the process is a more accurate and objective understanding of happiness, and that is what prepares you to apply your scientific understanding to explain and influence a wide range of outcomes.

0101	Carole Sebenick TuTh 9:30am - 10:45am	Seats (Total: 135) ESJ 2204
0201	Abigail Nicolas MW 3:00pm - 4:15pm	Seats (Total: 132) ESJ 1202

PSYC262 **Asian American Psychology**

Cross-listed with: AAST262. Credit only granted for: PSYC262, AAST262 or PSYC489Z. Formerly: PSYC489Z.

An overview of how socio-cultural influences impact the development and psychological health of Asian Americans. Other topics include how minority group status, adaptation and identity development influence various aspects of psychological functioning; the role of historic systematic racism; and, how the COVID-19 pandemic has negatively impacted Asian Americans. Students develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors and social support systems on the mental health, well-being and health of Asian Americans.

0101	Derek Iwamoto TuTh 12:30pm - 1:45pm	Seats (Total: 60) MMH 1400	

PSYC300 **Research Methods in Psychology Laboratory**

Prerequisite: PSYC200. Restriction: Must be in Psychology program.

A general introduction and overview to the fundamental theoretical, conceptual, and practical issues in psychological research in both the laboratory and the field.

Restricted to students in PSYC and NEUR majors only.

Click here for course syllabus.

0101	Tracy Tomlinson TuTh 8:00am - 9:15am Th 2:00pm - 3:50pm	Seats (Total: 16) CHE 2108 BPS 1236	Discussion
0102	Tracy Tomlinson TuTh 8:00am - 9:15am Th 4:00pm - 5:50pm	Seats (Total: 16) CHE 2108 KEY 0125	Discussion
0103	Tracy Tomlinson TuTh 8:00am - 9:15am F 8:00am - 9:50am	Seats (Total: 16) CHE 2108 BPS 1228	Discussion
0104	Tracy Tomlinson TuTh 8:00am - 9:15am F 10:00am - 11:50am	Seats (Total: 16) CHE 2108 BPS 0283	Discussion
0105	Tracy Tomlinson TuTh 8:00am - 9:15am F 12:00pm - 1:50pm	Seats (Total: 16) CHE 2108 BPS 1236	Discussion

0106	Tracy Tomlinson TuTh 8:00am - 9:15am F 2:00pm - 3:50pm	Seats (Total: 16) CHE 2108 BPS 1236	Discussion
0201	Tracy Tomlinson TuTh 9:30am - 10:45am Th 2:00pm - 3:50pm	Seats (Total: 16) CHE 2108 BPS 1232	Discussion
0202	Tracy Tomlinson TuTh 9:30am - 10:45am Th 4:00pm - 5:50pm	Seats (Total: 16) CHE 2108 BPS 1238	Discussion
0203	Tracy Tomlinson TuTh 9:30am - 10:45am F 8:00am - 9:50am	Seats (Total: 16) CHE 2108 BPS 1234	Discussion
0204	Tracy Tomlinson TuTh 9:30am - 10:45am F 10:00am - 11:50am	Seats (Total: 16) CHE 2108 BPS 1234	Discussion
0205	Tracy Tomlinson TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) CHE 2108 BPS 1234	Discussion
0206	Tracy Tomlinson TuTh 9:30am - 10:45am F 2:00pm - 3:50pm	Seats (Total: 16) CHE 2108 BPS 1234	Discussion
0301	Jacob Coutts TuTh 9:30am - 10:45am F 9:00am - 10:50am	Seats (Total: 16) ATL 1113 PLS 1146	Discussion
0302	Jacob Coutts TuTh 9:30am - 10:45am Th 2:00pm - 3:50pm	Seats (Total: 16) ATL 1113 PLS 1162	Discussion
0303	Jacob Coutts TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) ATL 1113 PLS 1162	Discussion

0304	Jacob Coutts	Seats (Total: 16)	
	TuTh 9:30am - 10:45am F 2:00pm - 3:50pm	ATL 1113 PLS 1162	Discussion

PSYC302 **Fundamentals of Learning and Behavior**

Prerequisite: PSYC100, BSCI170, and BSCI171. Restriction: Restricted to psychology majors during the registration period; all other majors will be placed on a hold file.

Overview of the fundamental types of learning that occur without formal instruction. The course covers fundamentals of classical and instrumental conditioning as studied in a variety of species in addition to more modern theories of learning. We will then explore how these principles influence diverse processes such as memory, attention, extinction, categorization, motivation, and in some cases, how they are implemented in the brain and disrupted in disease.

Restricted to students in PSYC and NEUR majors only.

0101	Matthew Roesch	Seats (Total: 50)
	TuTh 12:30pm - 1:45pm	BPS 1236

PSYC303 **Professional Development for Psychology Majors**

Prerequisite: PSYC123; or permission from the instructor with a completed resume. Restriction: Must have earned a minimum of 60 credits; and must be in the Psychology major.

An investigation of various career and graduate school opportunities available to psychology majors. Students will learn about a wide range of career fields, will learn how to utilize available resources to pursue career goals, and will take steps to advance their professional identity and development.

0101	Steven Young	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

PSYC304 **Biological Psychology**

Prerequisite: PSYC100, BSCI170 and BSCI171; or equivalent. Credit only granted for: PSYC301 or PSYC304. Formerly: PSYC301.

Biological Psychology is the study of the physiological basis of behavior. In this course, we will first cover the basic principles of brain organization and neural transmission. We will then introduce traditional and modern research techniques in the field of behavioral neuroscience. The last portion of the course focuses on specific topics including psychopharmacology, learning and memory, emotion, stress, drug of abuse, neurological disorders (e.g., Alzheimer's disease and Parkinson's disease) and schizophrenia.

Restricted to PSYC students only.

0101	Anna Li	Seats (Total: 75)
	TuTh 12:30pm - 1:45pm	PLS 1130

PSYC309G **Special Topics in Psychology**

(Perm req)

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

0101	Nazish Salahuddin W 1:00pm - 1:50pm	Seats (Total: 25) BPS 1238

PSYC309L **Special Topics in Psychology; Personality and Social Psychology**

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

Contact department for information to register for this course.

PSYC330 **Child Psychopathology**

Prerequisite: PSYC100. Restriction: Must be in Psychology program. Credit only granted for: PSYC309B or PSYC330. Formerly: PSYC309B.

Etiology, diagnosis, prevention and treatment of emotional disorders of childhood and adolescence.

Restricted to PSYC students only.

0101	Lea Dougherty M 8:30am - 9:45am W 8:30am - 9:45am	Seats (Total: 100) ESJ 1202 ONLINE

PSYC332 **Psychology of Human Sexuality**

Prerequisite: PSYC100.

A survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span psychological development, psychological functioning, interpersonal processes and sexual behaviors; political and social issues involved in current sexual norms and practices.

Restricted to PSYC (major code 20010/2001S) students only.

Contact department for information to register for this course.

PSYC334 **Psychology of Interpersonal Relationships**

Prerequisite: PSYC100.

Research, theory and their practical applications pertaining to the development, maintenance and dissolution of human relationships. Processes critical to successful relating (e.g., communication, bargaining, conflict resolution), and issues associated with troubled dyadic relations with equal partners (e.g., jealousy, spouse abuse, divorce).

For PSYC majors only.

0101	Edward Lemay MW 2:00pm - 3:15pm	Seats (Total: 150) ASY 2203	

PSYC336 **Psychology of Women**

Prerequisite: PSYC100. Cross-listed with: WGSS336. Credit only granted for: PSYC336, WMST336 or WGSS 336. Formerly: WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

Students will be expected to meet face-to-face during class time to complete small groupwork on 5-6 Fridays during the semester.

0101	Monica Kearney MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 110) ESJ 1202 ONLINE	 Discussion

PSYC338A **Special Topics in Study Abroad III; Applied Psychology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338D **Special Topics in Study Abroad III; Developmental Disorders**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338F **Special Topics in Study Abroad III; Cross-Cultural Psychology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338J **Special Topics in Study Abroad III; Human Development in Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338K **Special Topics in Study Abroad III; Forensic Psychology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338L **Special Topics in Study Abroad III; Psychology of Leadership**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338O **Special Topics in Study Abroad III; humanism and Humanistic Psychology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338P **Special Topics in Study Abroad III; Positive Psychology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC341 **Introduction to Memory and Cognition**

Prerequisite: PSYC200 and PSYC300.

An introduction to the basic concepts of cognitive psychology, the scientific study of mental processes. Topics will include perception, attention, memory, reasoning, and language, with an emphasis on how findings from cognitive psychology can inform real-life thinking (e.g., memory strategies for studying, pitfalls of multitasking, and how/why our memories can fail us).

Restricted to students in PSYC and NEUR majors only.

0101	Marissa Hartwig	Seats (Total: 117)	
	TuTh 12:30pm - 1:45pm	JMP 3201	

PSYC344 **Health Psychology**

Prerequisite: PSYC100; or permission of instructor. Restriction: Must be in the Psychology program; or must be in a major within the School of Public Health; or permission of instructor. Credit only granted for: PSYC489U or PSYC344. Formerly: PSYC489U.

An examination of how psychological, biological, and social factors impact physical health and well-being. Students will use the biopsychosocial model to analyze topics including stress, health disparities, pain, addiction, disease states (e.g., cardiovascular disease, diabetes, cancer), and primary prevention.

0101	Henry Willis	Seats (Total: 75)	
	MW 3:00pm - 3:50pm	ESJ 0215	
	Class time/details on ELMs	ONLINE	Discussion

PSYC353 **Adult Psychopathology**

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

The nature, diagnosis, etiology, and treatment of mental disorders.

Restricted to PSYC majors only.

0101	Abigail Nicolas	Seats (Total: 117)	
	TuTh 11:00am - 12:15pm	ESJ 1202	

PSYC354 **Multicultural Psychology in the U.S.**

Prerequisite: PSYC100.

What are the psychological implications of racism, sexism, homophobia and other structures of inequality in the United States? How do socio-cultural privilege and oppression influence individual and group thoughts, feelings, and behaviors? This course will take a current events focus to understanding multicultural and social justice issues in psychology with an emphasis on self-reflection, mental health, cross-cultural communication, and strategies for social change.

0101	Monica Kearney MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 150) ESJ 1224 ONLINE	 Discussion

PSYC355 **Developmental Psychology**

Prerequisite: PSYC100.

Survey of research and theory of psychological development from conception through childhood, stressing physiological, conceptual and behavioral changes, and the social and biological context in which individuals develop.

Restricted to PSYC students only.

0101	Elizabeth Redcay TuTh 11:00am - 12:15pm	Seats (Total: 150) ESJ 1224
0201	Arianna Gard TuTh 9:30am - 10:45am	Seats (Total: 150) PHY 1410

PSYC361 **Survey of Industrial and Organizational Psychology**

Prerequisite: PSYC100.

A general survey of the field of industrial organizational psychology including such topics as organizational entry (recruitment, selection, training, socialization); organizational psychology (motivation, leadership, job attitudes); productivity in the workplace (performance appraisal, absenteeism, turnover), and the role that the larger environment plays in influencing work behaviors and work attitudes.

Restricted to PSYC students only.

0101	Jennifer Wessel TuTh 9:30am - 10:45am	Seats (Total: 75) TWS 1310

PSYC389 **Experiential Learning**

(Perm req)

Internship in psychology-related fields.

A course for undergraduate psychology majors to earn academic credit for an approved psychology-related internship experience. Information about the course may be obtained in BPS1121, or by contacting the instructor. Restricted to PSYC majors only.

0101	Steven Young	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

PSYC391 **Community Interventions: Domestic Violence II - Service Learning**

(Perm req)

Prerequisite: PSYC381 or PSYC318D. Restriction: Preference given to majors in Psychology; Women, Gender, and Sexuality Studies; and Human Development; and permission of BSOS-Psychology department. Credit only granted for: PSYC319D or PSYC391. Formerly: PSYC319D.

Apply knowledge gained in PSYC318D/PSYC318 to provide interventions to individuals who have experienced domestic violence. Critical analysis of interventions and related research. Ethical and cultural considerations in the provision of services are addressed.

0101	Monica Kearney	Seats (Total: 12)
	Tu 12:30pm - 1:45pm	WDS 1102
	Contact instructor or department for details.	

PSYC404 **Introduction to Behavioral Pharmacology**

Prerequisite: PSYC202 or NEUR200. Restriction: Must be in Psychology program.

Theoretical viewpoints on the interaction of drugs and behavior. Basic principles of pharmacology, the effects of drugs on various behaviors, experimental analysis of drug dependence and abuse, and neuropharmacology and behavior.

Restricted to students in PSYC and NEUR majors only.

0101	Ana Navarro Cebrian	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	BPS 1243
	Class time/details on ELMs	ONLINE

PSYC406 **Neuroethology**

Prerequisite: PSYC301, PSYC202 or NEUR200. Restriction: Must be in Psychology program.

A merger between the disciplines of neuroscience and ethology (animal behavior) studies the behavioral functions of nervous systems using a comparative and evolutionary approach. Students will learn how the nervous system controls behavioral patterns in a variety of different organisms ranging from insects to mammals.

Restricted to students in PSYC and NEUR majors only.

0101	Jens Herberholz TuTh 2:00pm - 3:15pm	Seats (Total: 40) CCC 1200

PSYC414 **Science of Sleep and Biological Rhythms**

Prerequisite: PSYC301, PSYC202, or NEUR200; or permission of instructor. Restriction: Must be in a major within the BSOS-Psychology department; and restricted to psychology majors during the registration period.

Sleep is a powerful, inescapable, misunderstood, and mysterious presence in our lives. The course will begin with a review of the basics of sleep and biological rhythms with a focus on the underlying neurobiology. The bulk of the semester will be in-depth discussions of topics in sleep and circadian rhythms primarily chosen by the students. A few examples: narcolepsy, sleep in primitive cultures, lucid dreaming, racial and cultural differences in sleep and sleep disorders, the biology of sleep and circadian rhythms during adolescence, CNS control of dreaming, sleep and states of consciousness, sleeping to remember vs. sleeping to forget, legal ramifications of parasomnias, e.g. sleepwalking, and the relationships between sleep deprivation and obesity.

0101	David Yager MWF 9:00am - 9:50am	Seats (Total: 25) CCC 1105

PSYC417 **Data Science for Psychology and Neuroscience Majors**

Prerequisite: PSYC200 and PSYC300; and (MATH120, MATH130, or MATH140). Credit only granted for: PSYC489D or PSYC417. Formerly: PSYC489D.

A large number of industry and academic jobs require basic programming and data analysis skills. This class represents an introduction to both. Students will learn to program in R and will briefly be introduced to Python, the two most popular programming languages for data science. Common constructs shared by a variety of procedural programming languages will be emphasized. Basic statistics and probability theory will be reviewed from a computational perspective, and more advanced topics introduced. During the course, students will simulate toy data sets which they will then analyze knowing how the data came about, as well as work with real data. The class is highly hands-on with a large number of in-class lab and homework projects. Expect to work a lot and move quickly. Because of the hands-on nature of the class, the overall focus is more on application and execution rather than theory. However, some theory is covered at a high level so that students are aware of why they are doing something, rather than mindlessly writing code.

Restricted to students in PSYC and NEUR majors only with greater than or equal to 85 credits.

0101	Jacob Coutts TuTh 12:30pm - 2:30pm	Seats (Total: 24) PLS 1129
0201	Weizhen Xie MW 1:00pm - 3:00pm	Seats (Total: 24) BPS 0140

PSYC420 **Experimental Psychology: Social Psychology Laboratory**

Prerequisite: PSYC300 and PSYC221. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A laboratory course to provide a basic understanding of experimental methods in social psychology and experience in conducting research on social processes.

Restricted to PSYC students only.

0101	Joseph Barnet MW 10:00am - 10:50am F 12:00pm - 1:50pm	Seats (Total: 15) BPS 1238 BPS 1238	 Lab
0102	Joseph Barnet MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 15) BPS 1238 BPS 1228	 Lab
0201	Joseph Barnet MW 11:00am - 11:50am Th 10:00am - 11:50am	Seats (Total: 15) PLS 1113 BPS 1103	 Lab
0202	Joseph Barnet MW 11:00am - 11:50am Th 12:00pm - 1:50pm	Seats (Total: 15) PLS 1113 BPS 1103	 Lab

PSYC424 **Communication and Persuasion**

Prerequisite: PSYC221 and PSYC200.

Effect of social communication upon behavior and attitudes. Theory and research concerning attitude change and social influence.

ESG1	Edward Pallas Th 2:00pm - 4:30pm *Open to all UMD students at Shady Grove.*	Seats (Total: 40) BLD3 2230	

PSYC425 **Psychology and Law**

Prerequisite: PSYC100, PSYC200, and PSYC300. Restriction: Must be in Psychology program. Credit only granted for: PSYC325, or PSYC425.

An introduction to the intersection of psychology and the criminal justice system, known as the field of legal psychology. The material covered will span the course of the criminal justice process and examine each aspect from a psychological perspective beginning with profiling and moving on to eyewitness memory and judgements through perpetrator memories and interrogation techniques. These aspects will be evaluated with a research lens as well as an applied outlook.

0101	Tracy Tomlinson	Seats (Total: 30)	
	TuTh 12:30pm - 1:45pm	BPS 1238	

PSYC426 **Psychology of Adolescents' Close Relationships: Parents, Peers, and Romantic Partners**

Prerequisite: PSYC355; or permission of the instructor. Credit only granted for: PSYC426 or PSYC489B. Formerly: PSYC489B.

An examination of the development of close relationships during adolescence, including those with parents, peers, and romantic partners. We consider core developmental themes including nature and nurture, stability and change, and individual differences, and discuss theory, research, and clinical applications. Students gain observational skills through discussing extensive video examples of social interactions.

Restricted to PSYC students only.

0101	Jude Cassidy	Seats (Total: 35)	
	TuTh 11:00am - 12:15pm	BPS 1228	

PSYC431 **Human and Animal Intelligence**

Prerequisite: PSYC300. Credit only granted for: PSYC431 or PSYC489R. Formerly: PSYC489R.

The study of intelligence touches upon a broad range of topics from cognition, animal behavior, philosophy, psychology, and linguistics. Through lectures, discussions, and critical evaluation of opposing arguments, we will investigate the construct of intelligence from an evolutionary perspective. An understanding of animal intelligence also has important applications for understanding cognition in general, the design of robotic controls, investigating human health, conserving endangered species, development of artificial intelligence, and assuring animal welfare.

Restricted to PSYC and NEUR majors only.

0101	Amanda Chicoli	Seats (Total: 50)	
	MW 10:00am - 10:50am	BPS 1236	
	Class time/details on ELMs	ONLINE	Discussion

PSYC432 **Counseling Psychology: Theories, Research, and Practice**

Prerequisite: PSYC200.

Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

Restricted to PSYC students only.

0101	Erin Hill MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 70) ESJ 0215 ONLINE	
	Students will be expected to engage in asynchronous coursework on Friday's during the semester.		

PSYC433 **Basic Helping Skills: Research and Practice**

Prerequisite: PSYC300. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits; and must not have completed or be concurrently enrolled in EDCP 310. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Theories and research regarding effective helping relationships, with a focus on applications to counseling and psychotherapy. Students will practice helping skills with each other and will conduct research projects evaluating their helping skills. Students should be willing to talk about personal issues in class. Attendance in labs is mandatory and contributes to the course grade; thus, students should only enroll in a lab section that they will be able to attend consistently.

Restricted to PSYC students only.

0101	Jonathan Mohr M 2:00pm - 3:50pm W 9:00am - 10:50am	Seats (Total: 12) BPS 1243 ONLINE	Lab
0102	Jonathan Mohr M 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab
0103	Jonathan Mohr M 2:00pm - 3:50pm W 1:00pm - 2:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab
0104	Jonathan Mohr M 2:00pm - 3:50pm W 3:00pm - 4:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab
0105	Jonathan Mohr M 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab
0106	Jonathan Mohr M 2:00pm - 3:50pm W 1:00pm - 2:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab

0107	Jonathan Mohr M 2:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab
0108	Jonathan Mohr M 2:00pm - 3:50pm F 9:00am - 10:50am	Seats (Total: 12) BPS 1243 ONLINE	Lab
0109	Jonathan Mohr M 2:00pm - 3:50pm F 11:00am - 12:50pm	Seats (Total: 12) BPS 1243 ONLINE	Lab
0201	Heather Ganginis DelPino Tu 2:00pm - 3:50pm F 8:00am - 9:50am	Seats (Total: 12) BPS 1250 ONLINE	Lab
0202	Heather Ganginis DelPino Tu 2:00pm - 3:50pm F 10:00am - 11:50am	Seats (Total: 12) BPS 1250 ONLINE	Lab
0203	Heather Ganginis DelPino Tu 2:00pm - 3:50pm F 12:00pm - 1:50pm	Seats (Total: 12) BPS 1250 ONLINE	Lab
0204	Heather Ganginis DelPino Tu 2:00pm - 3:50pm W 9:00am - 10:50am	Seats (Total: 12) BPS 1250 ONLINE	Lab
0205	Heather Ganginis DelPino Tu 2:00pm - 3:50pm W 3:00pm - 4:50pm	Seats (Total: 12) BPS 1250 ONLINE	Lab
0206	Heather Ganginis DelPino Tu 2:00pm - 3:50pm W 5:00pm - 6:50pm	Seats (Total: 12) BPS 1250 ONLINE	Lab
0207	Heather Ganginis DelPino Tu 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) BPS 1250 ONLINE	Lab

0208	Heather Ganginis DelPino Tu 2:00pm - 3:50pm F 2:00pm - 3:50pm	Seats (Total: 12) BPS 1250 ONLINE	 Lab
0209	Heather Ganginis DelPino Tu 2:00pm - 3:50pm F 4:00pm - 5:50pm	Seats (Total: 12) BPS 1250 ONLINE	 Lab

PSYC435 **Temperament, Personality, and Psychopathology**

Prerequisite: PSYC200.

An advanced review of cutting-edge research in humans and animals aimed at understanding the psychological and biological mechanisms underlying stable individual differences in temperament and personality (T&P) and determining their role in adult and child psychopathology, with a major focus on anxiety disorders, depression, and addiction. We will discuss the developmental origins of T&P, measurement issues, fundamental dimensions, heritability, relevance to psychopathology and intervention (treatment and prevention), and broader implications for public policy.

Contact department for information to register for this course.

PSYC436 **Introduction to Clinical Psychology: From Science to Practice**

Prerequisite: PSYC300.

Critical analysis of clinical psychology, with particular emphasis on current developments and trends.

Restricted to PSYC (major code 20010/2001S) students only.

0101	Andres De Los Reyes MWF 4:00pm - 4:50pm	Seats (Total: 78) ESJ 0215	

PSYC437 **The Assessment and Treatment of Addictive Behaviors**

Prerequisite: PSYC100; and 9 credits in PSYC courses.

Explores the current research in assessment and treatment of addictive behaviors. Topics may include addictions in the areas of alcohol, drugs, nicotine, gambling, and eating.

0101	Ethan Mereish MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 60) ESJ 0215 ONLINE	 Discussion
0201	Abigail Nicolas MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 60) MCB 1207 ONLINE	 Discussion

PSYC442 **Psychology of Language**

Prerequisite: PSYC300 and PSYC341. Restriction: Must be in Psychology program.

Introductory survey of the psychology of language, focusing on the cognitive processes that enable us to produce and understand language. Topics include speech perception, speech production, syntactic processing, language development, language disorders, and the brain bases of language.

Restricted to PSYC (major code 20010) students only.

Contact department for information to register for this course.

PSYC450 **Applying Psychology to the Workplace: Industrial Organizational Psychology Laboratory**

Prerequisite: PSYC300.

In this laboratory course, students use data analytic techniques, along with psychology theories and principles, to solve problems and provide recommendations to mock organizations. Along with learning theories in industrial-organizational psychology and statistical analysis, students will improve personal presentation skills that promote effective communication of information.

0101	Benjamin Jones MW 10:00am - 10:50am Th 2:00pm - 3:50pm	Seats (Total: 15) HBK 0109 PLS 1172	 Lab
0102	Benjamin Jones MW 10:00am - 10:50am Th 9:30am - 11:20am	Seats (Total: 15) HBK 0109 EGR 3111	 Lab

PSYC464 **Psychology of Leaders in Work Organizations**

Prerequisite: PSYC200 and PSYC361.

The psychological assumptions and implications of various theories of management and leadership. Selections and training; development of careers; influence processes; change of managerial behavior; and the impact of the larger environment, nature of product or service, and organization structure on managerial behavior.

Contact department for information to register for this course.

PSYC468H **Field Experience and Special Assignments in Honors**

An individual experience arranged by the honors student and his or her supervisor. A proposal submitted to the honors faculty in the semester preceding registration for the course should state the activities anticipated and the method of evaluation.

5008	Karen O'Brien Contact instructor or department for details.	Seats (Total: 10)
8001	Robert Slevc Contact instructor or department for details.	Seats (Total: 10)

8701	Elizabeth Redcay Contact instructor or department for details.	Seats (Total: 2)
9108	Derek Iwamoto Contact instructor or department for details.	Seats (Total: 10)
9109	Edward Bernat Contact instructor or department for details.	Seats (Total: 10)
9110	Edward Lemay Contact instructor or department for details.	Seats (Total: 10)
9111	Tracy Riggins Contact instructor or department for details.	Seats (Total: 4)

PSYC469H **Honors Thesis Proposal Preparation**

(Perm req)

Development of honors thesis proposal by preliminary research and literature review. Presentation of formal proposal to the thesis committee.

Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC478 **Independent Study in Psychology**

(Perm req)

Information about independent study may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC479 **Special Research Problems in Psychology**

(Perm req)

Information about research credit may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC489F **Advanced Special Topics in Psychology; Cultural Experiences and Processes in Development and Psychopathology**

Treatment of a specialized topic in psychology.

Prerequisite: PSYC355 or equivalent. An introduction to the subfield of cultural development and psychopathology, which seeks to understand the cultural risk, protective, and promotive factors that contribute to typical and atypical patterns of development. This course will review the theoretical foundations of developmental psychopathology, contemporary models of culture, and current research on how cultural experiences and processes influence the emergence of adaptation and maladaptation at different levels of the human experience. Restricted to PSYC majors.

0101	Fanita Tyrell	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	HBK 0123

PSYC489G **Advanced Special Topics in Psychology; Hormones and Behavior**

Treatment of a specialized topic in psychology.

Prerequisite: C- or better in BSCI207, NEUR200, or PSYC202. Cross-listed with BSCI338N. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	BPS 1238

PSYC489T **Advanced Special Topics in Psychology; The Psychology of Terrorism**

Treatment of a specialized topic in psychology.

Prerequisite: PSYC300. This seminar will cover classic and contemporary approaches to the psychology of terrorism. We will discuss theories of radicalization and deradicalization, as well as empirical data on the motivational, cultural and social aspects of becoming a violent extremist. Restricted to PSYC majors.

0101	A Kruglanski	Seats (Total: 25)
	W 3:00pm - 5:30pm	BPS 1238

PSYC498H **Advanced Psychology II (Honors)**

(Perm req)

Seminar covering topics of current interest in psychology.

Restricted to students in the PSYC honors program. Please email lkader@umd.edu for permission to register.

0101	Michael Dougherty	Seats (Total: 20)	
	Th 4:00pm - 4:50pm	BPS 1103	

PSYC499H **Honors Thesis Research**

(Perm req)

In addition to the department and instructor, the director of the honors program may be contacted to obtain a section number. Prerequisite: permission of the thesis advisor. Permission may be obtained in BPS 1147. Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC602 **Quantitative Methods II**

(Perm req)

Prerequisite: PSYC601.

A continuation of PSYC 601. Topics include experimental design, analysis of variance, analysis of covariance, multiple regression, and general linear models.

For all non-psychology graduate students, written permission of the instructor is required.

0101	Paul Hanges	Seats (Total: 24)	
	TuTh 9:00am - 11:00am	BPS 1232	
	Th 5:00pm - 7:00pm	BPS 0140	Lab

PSYC603 **Introduction to Industrial and Organizational Psychology**

Credit only granted for: PSYC603 or PSYC730. Formerly: PSYC730.

Advanced survey of industrial-organizational psychology, including selection, training, motivation, group processes, leadership, organizational psychology, and organizational theory. Readings stressed and seminar time will be used for lectures, discussion and integration of the reading materials.

PWI1	Nikita Arun	Seats (Total: 40)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:00pm - 8:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	
	Must be in the Industrial/Organizational Psychology, Online (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC604 **Fundamentals of Social Psychology**

Credit only granted for: PSYC604 or PSYC640. Formerly: PSYC640.

A survey of classic and contemporary theories, research and methods in social psychology.

0101	A Kruglanski M 2:00pm - 4:30pm	Seats (Total: 20) BPS 1232

PSYC611 **Advanced Developmental Psychology**

Systematic exploration of contemporary and classic theories of development focusing on the assumptions they make and research they generate.

0101	Tracy Riggins W 9:30am - 12:00pm	Seats (Total: 20) BPS 1232

PSYC622 **Research Methods in Clinical Psychology**

(Perm req)

Restriction: Permission of instructor. Credit only granted for: PSYC622 or PSYC718. Formerly: PSYC718.

Examines issues and strategies in conceptual systems, designs and methodologies of current research in clinical and community psychology. Readings include critical analyses of published research. Course requirements include preparation of a research proposal for a thesis level study.

0101	Andres De Los Reyes W 9:00am - 11:30am	Seats (Total: 20) BPS 1234

PSYC623 **Child Development & Psychopathology**

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

Examines the scientific and clinical literature relevant to developmental aspects of behavior across the lifespan and normal and pathological behavior in children and adolescents. Issues in developmental psychology and developmental psychopathology and consideration of processes initiated in childhood that manifest as pathology in adulthood are also considered.

PCC1	Christina Danko **Meets February 26, 2024 - May 17, 2024** Th 6:00pm - 9:45pm *Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.*	Seats (Total: 40) BPS 1140B

PSYC629C **Clinical Laboratory; Adult Therapy Practicum**

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Jessica Magidson Contact instructor or department for details.	Seats (Total: 10)

0102	Mary Byrne	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629E **Clinical Laboratory; Diversity Training Therapy Practicum**

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Jessica Bonumwezi	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC630 **Behavioral and Cognitive Behavioral Intervention for Adults**

Prerequisite: PSYC680. Restriction: Permission of instructor. Credit only granted for: PSYC630 or PSYC728. Formerly: PSYC728.

Introduces students to the process of therapy with particular focus on behavioral focus on behavioral and cognitive behavioral internentions. Syllabus focuses on theory, research, client diversity, ehtics, and practical aspects of conducting therapy.

Click here for more course information.

PCC1	Susanna Crowell McQuarrie	Seats (Total: 40)
	Meets February 26, 2024 - May 17, 2024	
	Tu 6:00pm - 9:45pm	BPS 1140B
	Must be in Clinical Psychological Science (MPS). Golden ID students are not eligible for this section.	

PSYC632 **Behavioral and Cognitive Behavioral Intervention for Children and Adolescents**

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Formerly: PSYC789A.

Introduces students to the process of therapy with particular focus on behavioral and cognitive behavioral interventions in children and adolescents. Syllabus focuses on theory, research, client diversity, ethics and practical aspects of conducting therapy.

0101	Andrea Chronis-Tuscano	Seats (Total: 20)
	Tu 12:00pm - 2:50pm	BPS 1140B

PSYC638 **Externship in Professional Psychology; Externship in Professional Psychology**

Approved appointment as an extern in a mental health setting.

For PSYC majors only.

0101	Lea Dougherty	Seats (Total: 25)
	Contact instructor or department for details.	

0201	Derek Iwamoto	Seats (Total: 25)
	Contact instructor or department for details.	

PSYC639 **Internship in Professional Psychology; Internship in Professional Psychology**

This seminar combines involvement with a program approved appointment as an intern in a mental setting with a supervisory review of the training experience.

For PSYC majors only.

0101	Lea Dougherty	Seats (Total: 20)
	Contact instructor or department for details.	

PSYC653 **The Business of Evaluation: Research Methods at Work**

Prerequisite: PSYC652. Additional information: Course builds from work completed in PSYC 652. Students are also expected to commit to a two-term long project. Students will work with a non-profit organization or local business to ask and answer a business question for the organization. Students will conclude this project in PSYC 654.

Students will learn about the strengths and weaknesses of commonly employed research methods in business settings, including: longitudinal research, survey and interview (including focus groups) design, and sampling and weighting. Students will design and launch a research study that will answer a pressing business question.

PWI1	Vineet Gambhir	Seats (Total: 40)
	Meets February 26, 2024 - May 17, 2024	
	M 5:00pm - 8:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Must be in the Industrial/Organizational Psychology, Online (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PSYC654 **Advanced Analytical Thinking: Statistical Methods at Work II**

Prerequisite: PSYC652 and PSYC653. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

Students will delve deeply into issues of interpreting and questioning analytic results. Students will learn how to creatively present empirical results in ways that grab the attention of, and are clear to, a variety of stakeholders. Students will present group projects in two presentations, one to the rest of the class (technical audience) and one to an expert panel of practitioners. Finally, this course will introduce students conceptually to a number of advanced statistical methods, such as meta-analysis and structural equation modeling.

PCI1	Joselito Lualhati	Seats (Total: 35)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:00pm - 8:30pm Class time/details on ELMs	BPS 1140B ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC660 **Performance Management, Compensation, and Benefits**

Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

This course draws together content on organizational behavior, selection, assessment, development, employee relations, and compensation, among other topics. Students in this course will learn about how to align organizational reward systems, including selection, development, performance appraisal, feedback, and compensation systems. This course will pull from current organizational research and theory on issues ranging from work motivation, employee retention, and feedback processes to issues of organizational strategy and culture.

PCI1	Kenneth Yusko	Seats (Total: 40)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:00pm - 8:30pm Class time/details on ELMs	ESJ B0320 ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC661 **Practicum in IO Psychology**

Prerequisite: PSYC603, PSYC652, PSYC653, and PSYC654. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

In this practicum, students will work on IO-related tasks in an organization and will have the opportunity to apply what they have learned in class to real-world problems. Students will write a reflection paper reviewing what skills they have applied - and developed - while completing this practicum.

PCI1	David Shar	Seats (Total: 40)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:00pm - 8:30pm Class time/details on ELMs	ESJ B0320 ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC690 **Research in Counseling Psychology I**

(Perm req)

Prerequisite: For Counseling Psychology majors only. Cross-listed with: EDCP690. Formerly: EDCP778.

Critical analysis of strategies, methodological, conceptual, and content trends.

0101	Jonathan Mohr	Seats (Total: 10)
	W 1:00pm - 3:50pm	BPS 1234

PSYC693 **Assessment in Counseling Psychology II**

Prerequisite: PSYC692. Credit only granted for: PSYC693 or PSYC722. Formerly: PSYC722.

Supervised experience in administration, scoring, and interpreting major psychodiagnostic instruments used by counseling psychologists, as well as writing integrative assessment reports. Emphasis on hypothesis testing approach to assessment and on the counseling interview as an assessment tool.

0101	Kimberly Campbell	Seats (Total: 20)
	Tu 9:00am - 12:00pm	BPS 1140A

PSYC732 **Selection and Classification Issues in Organizations**

Prerequisite: PSYC603; and (PSYC602; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

Consideration of societal, organizational and individual demands for appropriate use of individual differences in (primarily) initial placement of employees. Recruitment, and selection issues, the role of governmental regulations, and the role of individual factors in individual behavior are considered. Extensive coverage given to fundamental psycho-metric problems and the development of individual and organizational criteria of effectiveness.

PCI1	Kenneth Yusko	Seats (Total: 35)	
	Meets February 26, 2024 - May 17, 2024		
	M 5:00pm - 8:30pm	BPS 1140B	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.		

PSYC737 **Research Methods for Social and Organizational Psychology**

Prerequisite: PSYC603 or PSYC604; or permission of instructor.

Conducting and evaluating research are among the most important activities undertaken in social and organizational psychology. Effectively accomplishing these tasks requires understanding fundamental principles and practices relevant to theory development (constructing and improving explanatory accounts for phenomena), research design (techniques and methods used to collect observations/data), and measurement (processes and techniques by which observations are assessed, quantified, and documented). This course aims to develop the requisite knowledge and critical thinking skills necessary to make informed decisions when performing and interpreting research in social and organizational psychology. Significant emphasis is placed on developing student thesis research and proposals.

0101	James Grand	Seats (Total: 20)
	Th 2:00pm - 4:30pm	BPS 1228

PSYC748M **Seminar in Social Psychology; Human Motivation**

A seminar on selected topics in social psychology.

Why do people do what they do? Why do they fight, and engage in violence? Why and how do they love? How they are persuaded to hold the beliefs tBest regards,nd why they are capable of believing in nonsense? What makes people depressed, drives them to despair or to acts of heroism. Motivation is the force that makes behavior happen, and understanding motivation is key to understanding human psychology. In this course, we will examine major theories of human motivation both classic and contemporary, and discuss cutting-edge issues in this quintessential domain of psychological science.

0101	A Kruglanski	Seats (Total: 20)
	Tu 1:00pm - 3:30pm	BPS 1234

PSYC789 **Special Research Problems**

0106	Jessica Magidson	Seats (Total: 5)
	Contact instructor or department for details.	

PSYC798C **Graduate Seminar; Research Methods in Developmental Psychology**

This course is designed to develop student's understanding of basic and current research methodologies used to answer developmental questions. Both theoretical and practical components will be included. Students will learn about the various philosophies that guide their research questions, how to measure and evaluate developmental phenomena, and determine what methods to use to assess interrelations across developmental time and domains. Finally, we will discuss methodological and analytical approaches to consider when addressing issues concerning missing data, generalizability, and working with diverse communities.

0101	Fanita Tyrell	Seats (Total: 20)
	W 3:40pm - 6:00pm	BPS 1228

PSYC798K **Graduate Seminar; Social and Cognitive Aspects of Behavior**

(Perm req)

Restricted to PSYC, COCP, and COSP only. This is a graduate seminar in social and cognitive aspects of behavior. The primary objective of is to provide graduate-level foundational knowledge in two core areas of psychology. These include social psychology and cognitive psychology. The secondsty objective is to promote integration of the presented material across these areas of psychology, and the value of contextualization and critical perspective-taking in psychological science and practice. Through primary readings, presentations, and class discussion, students will gain graduate-level foundational knowledge across key areas of social aspects of behavior including persuasion, attribution, stigma and prejudice, and altruism and aggression; gain graduate-level foundational knowledge across key areas of cognitive aspects of behavior including perception, attention, memory, language, decision making, and intelligence; and integrate social and cognitive aspects of behavior to conceptualize typical and atypical behavior.

0101	Yevgeny Botanov	Seats (Total: 20)
	Th 10:00am - 1:00pm	BPS 1140B

PSYC798O **Graduate Seminar; Diversity in Organizations**

0101	Jennifer Wessel	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	HBK 1112

PSYC799 **Master's Thesis Research; MASTERS THESIS RSRCH**

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

PSYC888A **Research Methods in Psychology; Developmental Seminar**

0101	Arianna Gard	Seats (Total: 10)
	M 10:00am - 12:30pm	BPS 1208

PSYC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

PSYC899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

RDEV Real Estate Development Spring 2024

RDEV250 **People, Planet, and Profit: Building Sustainable Places**

Cross-listed with: ARCH271. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis TuTh 11:00am - 12:15pm	Seats (Total: 150) ARC 0204

RDEV350 **Real Estate Development: Introduction to Principles, Process, and Practice**

(Perm req)

Prerequisite: RDEV250 or ARCH271. Restriction: Must be in the Real Estate and the Built Environment major or the Real Estate Development minor; and permission of ARCH-School of Architecture, Planning, & Preservation. Credit only granted for: RDEV150 or RDEV350. Formerly: RDEV150.

An introduction to the basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Jesse Saginor Th 7:00pm - 9:40pm	Seats (Total: 25) ASY 3207
0102	Christopher Donald Th 7:00pm - 9:40pm	Seats (Total: 30) ARC 1101

RDEV410 **Legal Foundations of Real Estate**

(Perm req)

Prerequisite: RDEV250 and RDEV350. Restriction: Must be in the Real Estate and the Built Environment major; and permission of ARCH-Real Estate Development.

Provides students with the chance to explore various legal topics related to real estate, including government regulation, rights of property owners, financing real estate purchases, protections for certain classes of people, elements of a real estate contract, title, insurance, taxation, rights of landlords and tenants, premises liability, urban planning, land use regulation, and environmental issues.

0101	Peter Goldsmith W 7:00pm - 9:40pm	Seats (Total: 30) ARC 1103

RDEV415 **Principles, Process and Politics of Planning for Real Estate Development**

(Perm req)

Prerequisite: RDEV250 and RDEV350. Restriction: Permission of ARCH-Real Estate Development.

Designed to introduce and familiarize students with planning and zoning and the associated processes and requirements that impact the real property development process and products. It will look at the roles the community and politics play in shaping the built environment and the development process.

0101	Zubin Adrianvala, Bilal Ali Th 7:00pm - 9:40pm	Seats (Total: 20) ARC 1103

RDEV445 **Essentials of Architectural Design and Construction Management for Real Estate Professionals**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development.

Essential terminology, process and substantive knowledge needed by development professionals to effectively move a project through the design and construction process; includes environmental and ethical considerations throughout the process.

0101	Matthew O'Malley M 7:00pm - 9:40pm	Seats (Total: 15) ARC 1101

RDEV450 **Foundations of Real Estate Finance and Investment**

(Perm req)

Prerequisite: Must have completed RDEV270 or an approved accounting course with a grade of C- or better; and minimum grade of C- in RDEV350. Restriction: Must be enrolled in RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation.

Real Estate Finance and Investment addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Kathryn Corby Tu 7:00pm - 9:40pm	Seats (Total: 30) ARC 1103
0102	Thomas Dwyer Tu 7:00pm - 9:40pm	Seats (Total: 20) ARC 1101
0103	John Park Tu 4:00pm - 6:40pm	Seats (Total: 30) ARC 1103

RDEV470 **Real Estate Development Case Studies**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Additional information: This course is one of the options for students in the Real Estate Development minor to fulfill their final elective course requirement. Students may select from a list of pre-approved courses (including this one) or propose a course to the Advisor for the Real Estate Development Minor. Additionally, the course is now required by the newly approved Bachelor of Arts in Real Estate and the Built Environment.

Real Estate Development Case Studies takes the principles learned in RDEV 250, 350 and 450 and takes an in depth look at a selection of local, national and international case studies in residential, commercial office, retail and hospital and critically analyzes the success and failure, short term and long term of the projects.

0101	John Park M 4:00pm - 6:40pm	Seats (Total: 20) ASY 3217

RDEV600 **Principles and Practice of Real Property Development**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688T or RDEV600. Formerly: RDEV688T.

An introduction to basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Jesse Saginor Th 7:00pm - 9:40pm	Seats (Total: 10) ASY 3207

RDEV603 **Introduction to Real Property Finance**

(Perm req)

Restriction: Permission of the Department. Credit only granted for: RDEV688Z, RDEV689V, or RDEV603. Formerly: RDEV688Z and RDEV689V.

Introduction to Real Property Finance addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Thomas Dwyer Tu 7:00pm - 9:40pm	Seats (Total: 12) ARC 1101

RDEV610 **Real Property Development Law and Ethics**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688A or RDEV610. Formerly: RDEV688A.

Presents foundational knowledge about real property, contracts, administrative and constitutional law, and ethical principals and reasoning skills.

0101	David Kalinski W 7:00pm - 9:40pm	Seats (Total: 30) ARC 1101

RDEV615 **Principles, Process and Politics of Planning for Real Property Development**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688G or RDEV615. Formerly: RDEV688G.

Designed to introduce and familiarize students with planning and zoning and the associated processes and requirements that impact the real property development process and products. It will look at the roles the community and politics play in shaping the built environment and the development process.

0101	Bilal Ali, Zubin Adrianvala Th 7:00pm - 9:40pm	Seats (Total: 30) ARC 1103

RDEV630 **Real Property Finance and Investment**

(Perm req)

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV630, RDEV688B, or URSP664. Formerly: RDEV688B.

This course is designed to introduce students who have experience in real estate finance or have taken an introductory course in real estate finance and investment to move to this intermediate course that addresses foundational concepts of commercial real estate finance and the measures used in analyzing and evaluating real estate projects. Quantitative analysis and financial modeling comprise the main focus.

0101	Mansur Abdul-Malik Tu 7:00pm - 9:40pm	Seats (Total: 30) ARC 1105

RDEV650 **Essentials of Design and Construction Management for Development Professionals**

(Perm req)

Restriction: Must be in Real Estate Development (Master's) program; or permission of ARCH-Real Estate Development. Credit only granted for: RDEV650 or RDEV688C. Formerly: RDEV688C.

Essential terminology, process and substantative knowledge needed by development professionals to effectively move a project through the design and construction process; includes environmental and ethical considerations throughout the process.

0101	Matthew O'Malley M 7:00pm - 9:40pm	Seats (Total: 25) ARC 1101

RDEV689F **Current Topics in Real Estate Development; Advanced Finance**

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	Zachary Marks Th 7:00pm - 9:40pm	Seats (Total: 20) ARC 1125

RDEV689I **Current Topics in Real Estate Development; Design and Development Competition**

(Perm req)

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of department.

0101	Ronald McDonald W 7:00pm - 9:40pm	Seats (Total: 14) ARC 1123

RDEV689Y **Current Topics in Real Estate Development; Guided Real Estate Development Project**

(Perm req)

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	Maria Day-Marshall Tu 7:00pm - 9:40pm	Seats (Total: 12) ARC 1123

RDEV690 **Capstone Project: Real Property Feasibility Study**

(Perm req)

Prerequisite: Completion of at least 7 RDEV courses. Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688I or RDEV690. Formerly: RDEV688I.

The capstone course is designed to provide students with an opportunity to apply acquired classroom knowledge to real world conditions. Each student in the class will work separately to create a development proposal and feasibility study for an assigned property. For students doing a feasibility study of a development the study will address at least market analysis, entitlement process, construction, and financing for the project.

0101	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 12) ARC 1125

0102	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 12) Location: TBA	
0103	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	
0104	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	
0105	Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) Location: TBA	

RELS Religious Studies Spring 2024

RELS170 **Ancient Myths and Modern Lives**

Cross-listed with: CLAS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Francisco Barrenechea MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 PLS 1162	Discussion
0102	Francisco Barrenechea MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PHY 4222	Discussion
0103	Francisco Barrenechea MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 LEF 1171	Discussion
0104	Francisco Barrenechea MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 PLS 1168	Discussion
0105	Francisco Barrenechea MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PLS 1158	Discussion

0106	Francisco Barrenechea MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 WDS 1102	Discussion
0107	Francisco Barrenechea MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 PLS 1115	Discussion
0108	Francisco Barrenechea MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 PLS 1115	Discussion
0109	Francisco Barrenechea MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 HBK 1112	Discussion

RELS219K **Reformers, Radicals, and Revolutionaries: The Middle East in the Twentieth Century**

Cross-listed with: HIST245. Credit only granted for: RELS219K or HIST245.

The 20th century was a period of dramatic changes in the Middle East. Within the global context of the two World Wars and the Cold War, countries in the region struggled with the effects of colonialism and painful processes of decolonization. The course offers a thematic-comparative approach to issues such as social and political reform, nationalism, the colonial experience, independence struggles, models of governance, political violence, and Islamism. Course lectures and the analysis and discussion of primary sources will lead students to understand that the peoples of the Middle East found answers to the challenges posed by Western dominance based on their specific historical, cultural and socio-economic circumstances.

For Spring 2021; Cross-listed with HIST245. Credit granted for HIST245, ARAB298K, or RELS219K.

0101	Peter Wien TuTh 11:00am - 12:15pm	Seats (Total: 40) KEY 0116	

RELS225 **Religions of the Ancient Near East**

Cross-listed with: HIST219I, JWST225. Credit only granted for: JWST225, HIST219I, RELS225, or RELS219A. Formerly: RELS219A.

Introduction to ancient Near Eastern religious systems and mythology, from the third millennium BCE through the fourth century BCE. Particular emphasis on Mesopotamia and ancient Israel.

0101	Matthew Suriano TuTh 11:00am - 12:15pm	Seats (Total: 25) HBK 0105	

RELS269B **Special Topics in Study Abroad II; Buddhism and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269G **Special Topics in Study Abroad II; From Asoka to Gandhi: Buddhism and Hinduism in Contemporary Society**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS271 **What is Religion?**

Credit only granted for: RELS289I or RELS271. Formerly: RELS289I.

Draws upon examples from a wide variety of religious traditions to explore the question of what religion is and how to best understand it. Engagement with diverse approaches to religion including phenomenology and the study of "the sacred"; sociology and the study of religious communities; and questions of religious experience, ritual, and identity formation.

0101	Rachel Schine MW 2:00pm - 3:15pm	Seats (Total: 40) ATL 1114	

RELS289C **Jews, Christians, and Muslims in Medieval Spain: Tolerance, Oppression, and the Problematic Past**

Cross-listed with: HIST289A. Credit only granted for: HIST289A or RELS289C.

For 800 years, medieval Spain was home to one of the most religiously diverse societies in European history. Despite frequent hostilities, the interactions of Spanish Jews, Christians, and Muslims produced a flowering of science, theology, and literature in an often remarkably tolerant climate. Students will learn how medieval Spanish people themselves experienced interreligious contact and conflict. They will also discover the modern pressures, prejudices, and ideals that have shaped historians interpretations of medieval Spain.

0101	Janna Bianchini MW 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 23) SYM 0200 SYM 0209	 Discussion
0102	Janna Bianchini MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 23) SYM 0200 ASY 3217	 Discussion
0103	Janna Bianchini MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 23) SYM 0200 ASY 3217	 Discussion

RELS319B **Special Topics in Religious Studies; Minorities, Minorization, and Sectarianism in the Modern Middle East**

Special topics in the study of religious history, literature, culture, and thought.

0101	Peter Wien	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0100

RELS343 **The European Reformations**

Cross-listed with: HIST333. Credit only granted for: HIST333 or RELS343.

Examination of developments in European religion between 1450 and 1700; the late-medieval Church and its critics; rise of Protestant thought in Germany and its spread throughout Europe; reform efforts in the Catholic Church; religious wars and violence and their impact on state and society; consequences of religious reform in society and its impact on the family and women.

0101	Philip Soergel	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TLF 1101

RELS369C **Special Topics in Study Abroad III; Between Tolerance and Conflict**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369L **Special Topics in Study Abroad III; Society and Religion in Latin America**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369R **Special Topics in Study Abroad III; Christianity and the Roman Empire (100-425CE)**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369Z **Special Topics in Study Abroad III; All Roads Lead to Rome**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS419C **Advanced Topics in Religious Studies; Constructing the Past in Early Islam**

The contemporary study of religion in which topics may address specific religious traditions, regional or historical developments, or methodological and theoretical issues.

Cross-listed with HIST429M. Credit only granted for HIST429M or RELS419C. An exploration of historical writing in the medieval Islamic world. How did early Islamic-era scholars define their relationship to the past, torn between memory and oblivion? How did they build narratives about the formative period of Islam that became so influential and long-lasting, determining in a fundamental way the access that all future generations (including us) would have to alternative pasts?

0101	Antoine Borrut	Seats (Total: 10)
	Tu 3:30pm - 6:00pm	TLF 2100

RELS419L **Advanced Topics in Religious Studies; Digital Methods in Historical Research**

The contemporary study of religion in which topics may address specific religious traditions, regional or historical developments, or methodological and theoretical issues.

Cross-listed with HIST429B. Credit only granted for HIST429B or RELS419L. This course provides introductions and hands-on experience to a variety of digital approaches to historical analysis. Students will be able to plan and execute a basic digital historical project of their own and to identify resources for further development. No prior coding knowledge is necessary.

0101	Hayim Lapin	Seats (Total: 10)
	Th 3:30pm - 6:00pm	TLF 2103

RELS429B **Advanced Topics in Religious History; Sex, Gender, and Sexuality in the Islamic World**

Advanced study of religious history in a particular setting, with attention to particular themes, texts, events, or communities.

Cross-listed with CMLT679D, HIST419C, PERS498M, PERS689M, WGSS498D, and WGSS698D. Credit granted for CMLT679D, HIST419C, PERS498M, PERS689M, RELS429B, WGSS498D, or WGSS698D.

0101	Matthew Miller	Seats (Total: 14)
	Th 12:30pm - 3:15pm	JMZ 1123

RELS429M **Advanced Topics in Religious History; From Damascus to Cordoba: The First Dynasty of Islam East and West**

Advanced study of religious history in a particular setting, with attention to particular themes, texts, events, or communities.

Cross-listed with HIST329M. Credit only granted for HIST329M or RELS429M. A global history of the first dynasty of Islam, from their Arabian origins to Syria and Iberia, with a focus on how the Umayyads wanted to memorialize themselves while questioning the construction of historical narratives in medieval Islam.

0101	Antoine Borrut	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TLF 1103

RELS499 **Independent Study in Religious Studies**

An advanced independent research project for qualified students, supervised by a faculty member, on a topic not ordinarily covered in available courses.

Contact department for information to register for this course.

RUSS Russian Spring 2024

RUSS102 **Intensive Elementary Russian II**

Prerequisite: RUSS101 or RUSS102; and must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a native/fluent speaker of Russian. Credit only granted for: RUSS102 or (RUSS113 and RUSS114).

A continuation of RUSS101 which will further develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.

0101	Inna Hardman MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 3122 JMZ 3122
0201	Inna Hardman MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 3122 JMZ 3122

RUSS202 **Intermediate Russian II**

Prerequisite: RUSS201; or must have appropriate World Language Placement Test (WLPT) score. Restriction: Must not be a native/fluent speaker of Russian.

Continued activation and expansion of skills and knowledge acquired in RUSS201 with the goal of communicative competence.

0101	Zhanna Gerus-Vernola MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 15) JMZ 2125 JMZ 2125

RUSS287 **The Power of the Word: Freedom of Speech in the U.S. and Russia**

Credit only granted for: RUSS287 or RUSS289I. Formerly: RUSS289I. Additional information: Taught in English.

The central theme is the abiding human propensity to ask questions, to use language to pursue inquiry. To be a "critical thinker," one must develop the habit and discipline of asking questions and challenging assumptions. Through a comparative approach to the US and Russian experiences, we will explore the role of language and its power in different political and social systems. We will explore such questions as: Why is free speech so fiercely defended in a democracy and such a threat to totalitarianism? What is the relationship between free speech, political power and dissent? Is the pen still mightier than the sword, even in the nuclear age? What has shaped our current attitudes toward freedom of expression? How has the concept of political free speech been extended to include freedom of expression in general, such as in the creative arts? What role do new technologies play in the arena of free speech debates? We will explore how freedom of speech and expression has been defended or its suppression justified in the US and Russia. We will practice the art of questioning and constructing counter-arguments throughout the course.

0101	Cynthia Martin TuTh 9:30am - 10:45am	Seats (Total: 60) HJP 2242

RUSS302 **Advanced Russian II**

Prerequisite: RUSS301.

Advanced training in written Russian communicative structures.

0101	Michael Lavery MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 1103

RUSS386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-School of Languages, Literatures, and Cultures department.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

RUSS398F **Selected Topics in Russian Language and Literature; Soviet Film: Soviet Cinema and Culture after Stalin**

Cross-listed with CINE329E. Credit only granted for RUSS398F or CINE329E. Provides a survey of post-Stalin Soviet cinema and culture. Examines thecomplexities of Soviet culture and everyday life, exploring the role of art and culture in an ever-shifting Soviet socialist system, and the place of the individual within that system.

0101	Elizabeth Papazian TuTh 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0103

RUSS398T **Selected Topics in Russian Language and Literature; Contemporary Russian-Language Theater: History and Practice**

Prerequisite: RUSS202 or equivalent proficiency. Taught in Russian.

0101	Mikhail Durnenkov M 4:30pm - 7:00pm	Seats (Total: 15) JMZ 3203

RUSS402 **Practicum in Written Russian**

Prerequisite: RUSS401; or students who have taken courses with comparable content may contact the department.

Designed to improve comprehension of functional varieties of written Russian and develop ability to present in written form concise syntheses of source texts.

0101	Cynthia Martin TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 1124

RUSS439R **Selected Topics in Russian Literature; Digital Approaches to Russophone Cultures in Exile**

Presentation of a topic in Russian literature.

Prerequisite: RUSS302 or equivalent proficiency. Explores selected texts, films, and other media with a focus on representations of the experience of exile and emigration in Russophone cultures in the 20th and 21st centuries. We will learn about the historical and cultural contexts of the five waves of emigration from the Soviet Union and modern Russia. Students will also become familiar with various digital humanities platforms and create online resources that "map" Russian-speaking culture in exile around the world today and over the past century. Taught in Russian.

0101	Michael Lavery	Seats (Total: 15)
	MW 2:00pm - 3:15pm	JMZ 1103

RUSS499 **Independent Study in Russian**

(Perm req)

Independent study under faculty supervision.

Contact department for information to register for this course.

RUSS798 **Independent Study**

3190	Michael Lavery	Seats (Total: 5)
	Contact instructor or department for details.	

SLAA Second Language Acquisition and Application Spring 2024

SLAA611 **Fundamentals of Foreign Language Acquisition and Instruction**

Introduction to theoretical and practical issues relevant to foreign language learning, language acquisition, and curriculum construction.

0101	Megan Masters	Seats (Total: 15)
	M 2:00pm - 4:30pm	JMZ 1226

SLAA630 **Second Language Testing**

Prerequisite: SLAA610; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An introduction to basic concepts in the assessment of second language knowledge. Issues of reliability, dependability, construct validity, utility, and washback on instruction are examined.

0101	Martyn Clark	Seats (Total: 15)
	Th 2:00pm - 4:30pm	JMZ 1226

SLAA649R **Special Topics in Second Language Acquisition; Research Critique**

Current topics in research in second language acquisition.

0101	Kira Gor	Seats (Total: 15)
	Th 5:00pm - 7:30pm	JMZ 1226

SLAA719 **Second Language Acquisition and Application Internship**

Internship at a site to be determined. Topics may include heritage language learning, immersion education, testing and assessment, translation and interpretation, and national language planning and policy.

Contact department for information to register for this course.

SLAA749L **Special Topics in Second Language Learning; Language Transfer**

Current topics in research on Second Language Learning.

0101	Nan Jiang	Seats (Total: 15)
	W 5:00pm - 7:30pm	JMZ 3120

SLAA749T **Special Topics in Second Language Learning; Statistics for Second Language Research**

Current topics in research on Second Language Learning.

A high-level overview of current statistical methodologies in foreign and second language learning, focused on the development of applied data analysis, interpretation, and data visualization. Particular emphasis will be placed on the effective communication of complex statistical procedures and associated results for both technical and non-technical audiences.

0101	Nick Pandza	Seats (Total: 15)
	F 2:00pm - 4:30pm	JMZ 1226

SLAA779 **Directed Research in Second Language Acquisition and Application**

Directed independent research in Second Language Acquisition or Application. In this capstone project, students engage in independent research under faculty direction.

Contact department for information to register for this course.

SLAA798 **Master's Independent Study**
Contact department for information to register for this course.

SLAA799 **Master's Thesis Research**
Contact department for information to register for this course.

SLAA888 **Doctoral Independent Study**

Individual instruction course.

Contact department for information to register for this course.

SLAA898 **Pre-Candidacy Research**
Contact department for information to register for this course.

SLAA899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SLLC School of Languages, Literatures and Cultures Spring 2024

SLLC108P **Beg Less Commonly Taught Language I; Akkadian**

(Perm req)

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Penn State University, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 8, 2024 - April 26, 2024	
	MW 4:00pm - 5:15pm	ONLINE

SLLC109U **Beg Less Commonly Taught Language II; ELEMENTARY UKRAINIAN II.**

(Perm req)

Study of any of the less commonly taught languages at the elementary level, as a continuation of SLLC108 (in the same language). Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Indiana University, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets January 8, 2024 - May 3, 2024	
	MTuWTh 10:20am - 11:10am	ONLINE

SLLC169L **Special Topics in Study Abroad I; Basque Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC286 **Living the Good Life: Chinese Philosophy in the Modern World**

Additional information: Taught in English.

Confucius, Mencius, Zhuangzi and other Chinese thinkers who lived more than 2,000 years ago would argue that the contemporary Western emphasis on self-discovery (Find yourself) and self-acceptance has led you astray. See what they have to say and discuss what relevance it has for the modern world as we study how early Chinese thinkers wrestled with questions of existence, morality, and governance. No previous knowledge of Chinese philosophy and history will be assumed and no prerequisites are required. We will discuss ideas that are both historical and relevant to students' lives. What is "the Way"? How do we cultivate spontaneity? Is there a stable self? How can we be more alive? These are questions important for ancient kings but also for UMD students choosing a major, or wondering how ARHU can benefit them.

0101	Andrew Schonebaum	Seats (Total: 43)
	TuTh 2:00pm - 3:15pm	JMZ 2206

SLLC299R **Special Topics in World Cultures; Elementary Italian I**

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC299Z **Special Topics in World Cultures; Spanish Civilization and Culture**

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC305 **Language, Identity and Diversity in the U.S.**

Introduces issues of linguistic diversity in the framework of the U.S. as a multilingual society. Special emphasis is placed on attitudes toward language diversity, specifically, how regional, social, generational, ethnic, racial and gender differences in language use contribute to notions of identity.

0101	Ali Abasi	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 0120

SLLC309 **Language Partner Program**

(Perm req)

For intermediate- to advanced-level language study. Conversations entirely in target language with native speaker.

Students interested in enrolling must first apply and be accepted to the Language Partner Program. Decisions on admission are typically made after the registration period begins, so please keep this in mind when planning your schedule, and be sure to keep the course dates/times open. Students must be able to meet on Monday, January 29, 2024 and Monday, April 22, 2024.

0101	Ahmed Hanafy	Seats (Total: 10)
	Meets January 29, 2024 - April 22, 2024	
	M 4:00pm - 5:50pm	Location: TBA
	Contact instructor or department for details.	
	Arabic	

0102	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Chinese*	Seats (Total: 10) Location: TBA
0103	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *French*	Seats (Total: 10) Location: TBA
0104	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *German*	Seats (Total: 10) Location: TBA
0105	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Italian*	Seats (Total: 10) Location: TBA
0106	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Japanese*	Seats (Total: 10) Location: TBA
0107	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Korean*	Seats (Total: 10) Location: TBA
0108	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Portuguese*	Seats (Total: 10) Location: TBA

0109	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Russian*	Seats (Total: 10) Location: TBA
0110	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Spanish*	Seats (Total: 15) Location: TBA
0111	Ahmed Hanafy **Meets January 29, 2024 - April 22, 2024** M 4:00pm - 5:50pm Contact instructor or department for details. *Persian*	Seats (Total: 10) Location: TBA

SLLC329 **Language House Immersion**

This course provides credit for students participating in the Language House Living-Learning program. It focuses on the further development of skills in the target language and the acquisition of cultural knowledge of the countries and communities where people speak the target language. It requires hands-on immersive linguistic and cultural activities led by a native-speaking mentor and supplements the learning that takes place in the language classroom and in the living-learning environment of the Language House.

This course provides credit for students participating in the Language House Living-Learning program. It focuses on the further development of skills in the target language and the acquisition of cultural knowledge of the countries and communities where people speak the target language.It requires hands-on immersive linguistic and cultural activities led by a native-speaking mentor and supplements the learning that takes place in the language classroom and in the living-learning environment of the Language House.

0101	Marilyn Matar Contact instructor or department for details. *"Arabic"*	Seats (Total: 10)
0102	Marilyn Matar Contact instructor or department for details. *"Chinese"*	Seats (Total: 10)

0103	Marilyn Matar Contact instructor or department for details. *"French"*	Seats (Total: 10)
0104	Marilyn Matar Contact instructor or department for details. *"German"*	Seats (Total: 10)
0105	Marilyn Matar Contact instructor or department for details. *"Italian"*	Seats (Total: 10)
0106	Marilyn Matar Contact instructor or department for details. *"Japanese"*	Seats (Total: 10)
0107	Marilyn Matar Contact instructor or department for details. *"Korean"*	Seats (Total: 10)
0108	Marilyn Matar Contact instructor or department for details. *"Persian"*	Seats (Total: 10)
0109	Marilyn Matar Contact instructor or department for details. *"Russian"*	Seats (Total: 10)
0110	Marilyn Matar Contact instructor or department for details. *"Spanish"*	Seats (Total: 10)

SLLC369A **Special Topics in Study Abroad III**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369D **Special Topics in Study Abroad III; Art and Dictatorship**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369E **Special Topics in Study Abroad III; Experiments in Czech Film**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC399L **Special Topics in World Cultures; Languages in Community**

Topic to be announced when course is offered.

Provides students with context for understanding, communicating with, and working with local multilingual communities. Topics include local demographics, cultures, communities, work opportunities, and developing cultural proficiencies. Requires outside service-learning work at a local site.

0101	Ana Rodriguez	Seats (Total: 18)
	TuTh 9:30am - 10:45am	Location: TBA

SMLP Southern Management Leadership Program Spring 2024

SMLP471 **Entrepreneurial Finance**

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN471, SMLP471, ENES466 or BMGT365. Formerly: HLMN471. Additional information: SMLP471 may not count toward any BMGT major or minor degree.

Examine the elements of entrepreneurial finance, develop and analyze financial statements, focusing on technology-based startup ventures and the early stages of company development. Address key questions that challenge all entrepreneurs: how much money can and should be raised; when it should be raised and from whom; how to define a reasonable valuation of a company; and how to structure funding, develop employment contracts, and make exit decisions. Analyze the variety of financing models across a venture's life cycle, with an aim to understanding the incentives of each type of investor and the relative costs and benefits of each source of funding.

0101	Jennifer Hsin	Seats (Total: 60)
	F 1:00pm - 3:30pm	ESJ 2309

SMLP474 **Essentials of Negotiations and Marketing for Entrepreneurs**

Restriction: Must be in the Southern Management Leadership Program.

Building on the innovation and entrepreneurship knowledge acquired in previous SMLP courses, this team-taught course will equip students with the experience to conduct successful negotiations and bring an innovation to market. In the first half of this course, you will learn more about your individual negotiation style and practice the skills and techniques essential to a successful negotiation. You will then apply some of those skills, along with the human-centered mindset cultivated in previous SMLP courses, to introduce an existing product to the marketplace by identifying the promotion, distribution, and pricing tactics that meet the preferences of the intended target market. The course will conclude with a live presentation of your comprehensive go-to-market strategy to a panel of real investors, followed by a mock negotiation for an investment in bringing that product to market.

0101	Sara Herald F 1:00pm - 3:30pm	Seats (Total: 60) HJP 2242

SOCY Sociology Spring 2024

SOCY100 **Introduction to Sociology**

Introduces fundamental concepts and theories of sociology. Guided by C. Wright Mills' "sociological imagination," the course promotes critical thinking; challenges conventional assumptions about culture politics, history, and psychology; and equips students with theoretical approaches and research methods to analyze various sociological topics, including family, work, education, religion, social movements, and issues related to class, gender, race, and ethnic inequalities.

0101	Jeffrey Parsells-Johnson MW 3:30pm - 4:45pm	Seats (Total: 90) ONLINE
0201	Jeffrey Parsells-Johnson TuTh 11:00am - 12:15pm	Seats (Total: 90) ONLINE
0301	Mansoor Moaddel MW 2:00pm - 3:15pm	Seats (Total: 120) SHM 2102
0401	Jennifer Ashlock TuTh 2:00pm - 3:15pm	Seats (Total: 120) ASY 2203
0501	Christopher Malackany MWF 10:00am - 10:50am	Seats (Total: 90) ASY 2309
0601	Christopher Malackany MWF 11:00am - 11:50am	Seats (Total: 90) ASY 2309

SOCY105 **Introduction to Contemporary Social Problems**

Embark on an exploration of contemporary social issues and unravel the intricate ways in which these challenges are woven into the fabric of society. Develop a comprehensive understanding of societal organization and partake in a detailed study of selected social problems, with a specific emphasis on issues like social conflict and inequality. This course provides an insightful journey into the nuanced interplay between societal structure and prevalent challenges, fostering a heightened awareness of the dynamics shaping our social landscape.

0101	Brian Connor MWF 10:00am - 10:50am	Seats (Total: 90) TWS 1100
0201	Brian Connor MWF 11:00am - 11:50am	Seats (Total: 90) TWS 1100

SOCY200 **Human Societies**

We will explore the nature of human societies through comparative, historical, and interdisciplinary perspectives. Students will delve into the core of social structures, unravel the defining components of society, and examine their organization, evolution, and impact on collective existence. Students will also explore the socio-historical forces and geopolitical dynamics that drive social change to analyze the complex connections that illuminate our shared social experience across time.

0101	Daniel Swann	Seats (Total: 120)	
	MW 11:00am - 11:50am Class time/details on ELMs	ASY 2203 ONLINE	Discussion

SOCY201 **Introductory Statistics for Sociology**

Prerequisite: SOCY100; and (MATH107 or MATH111). Restriction: Must not have completed STAT400, BMGT231, or ENEE324.

Students will explore descriptive and inferential statistics. You will hone your quantitative analytical skills to construct impactful bivariate tables, craft frequency distributions, and decipher measures of central tendency and dispersion. Additionally, you will master the techniques of hypothesis testing, chi-square, ANOVA, and ordinary least squares regression, equipping you to seamlessly translate data into meaningful research insights.

0101	Amelia Branigan	Seats (Total: 20)	
	MW 2:00pm - 3:15pm F 10:00am - 11:50am	ASY 3203 LEF 0227	Lab
0102	Amelia Branigan	Seats (Total: 20)	
	MW 2:00pm - 3:15pm F 12:00pm - 1:50pm	ASY 3203 LEF 0227	Lab

SOCY202 **Introduction to Research Methods in Sociology**

Prerequisite: SOCY100.

We will examine why social research is needed, explore some of the main quantitative and qualitative techniques to conduct sociological research, and discover how to understand and critically evaluate sociological research on pressing social problems. Students will also learn to use specialized software to analyze and interpret quantitative data in the computer lab.

0101	Christopher Tamborini	Seats (Total: 20)	
	Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm F 10:00am - 11:50am	ASY 2309 ONLINE LEF 0229	Lab

0102	Christopher Tamborini Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 ONLINE LEF 0229	 Lab
0103	Christopher Tamborini Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm F 2:00pm - 3:50pm	Seats (Total: 20) ASY 2309 ONLINE LEF 0229	 Lab

SOCY203 **Sociological Theory**

Prerequisite: SOCY100.

Examines major trends in the history and development of sociological thought, including theories of inequality, the self, institutions, and more. With each theorist students will learn what sociologists assume and focus on when studying societies.

Required for all SOCY majors.

0101	Meyer Kestnbaum TuTh 2:00pm - 3:15pm	Seats (Total: 50) TWS 1310

SOCY224 **Why are We Still Talking About Race?**

Explore and discuss the major debates and assumptions that construct perceptions of race and how it matters. Sociological and social science theories will give students a historical and present day frame with which to view race and ethnic relations in the twenty-first century.

0101	Dawn Dow TuTh 12:30pm - 1:45pm	Seats (Total: 90) ASY 2309
0201	Kris Marsh TuTh 8:00am - 9:15am	Seats (Total: 110) ASY 2203

SOCY227 **Introduction to the Study of Deviance**

Credit only granted for: SOCY227 or SOCY327. Formerly: SOCY327.

An introduction to the sociological study of deviant behavior, covering such topics as mental illness, sexual deviance, and the use of drugs.

0101	Christopher Malackany MW 2:00pm - 3:15pm	Seats (Total: 90) SQH 1120

SOCY230 **Sociological Social Psychology**

Why do people do that? Sitting at the nexus of sociology and psychology, this course surveys the various ways in which sociologists have answered this question. We investigate individuals-for example, how they develop and understand themselves in relation to others, how they choose to present themselves to the world, and how they form thoughts and opinions. And we study larger units of analyses, from small groups to the broader society. Topics covered include socialization, identity formation, social influence, group processes, how social processes shape individual behavior, and how human behavior shapes society.

0101	Long Doan TuTh 12:30pm - 1:45pm	Seats (Total: 180) ASY 2203

SOCY241 **Inequality in American Society**

Credit only granted for: SOCY241 or SOCY441.

A broad-based overview of inequality in contemporary U.S. society, focusing on measuring patterns and trends over time. A series of learning modules familiarizes students with how inequality unfolds in relation to social stratification processes along the lines of race, gender, education and social class, income and wealth, and health.

Credit granted for SOCY241 or SOCY441.

0101	Collin Mueller MWF 2:00pm - 2:50pm	Seats (Total: 60) ASY 2309

SOCY242 **Sociology of Homelessness**

Examines the causes of and solutions for homelessness in society. How social scientists analyze social issues using ethnographic observation, surveys, official statistics, and other research methods. Discusses how policies have responded to the problem of homelessness, and how to evaluate their effectiveness.

0101	Reeve Vanneman, Amy McLaughlin TuTh 11:00am - 12:15pm	Seats (Total: 60) ASY 2309

SOCY243 **The Family: Diversity, Inequality, and Social Change**

Credit only granted for: SOCY243 or SOCY443. Formerly: SOCY443.

An exploration of diversity and inequality in family life, focusing on empirical patterns and trends, political and cultural debates, and policy issues, including the major theories and research methods used in the sociological study of the family in a plural society.

Contact department for information to register for this course.

SOCY244 **Bridging Perspectives: Critical Conversations Between Students and Police**

This course is a university curriculum created by the International Association of Chiefs of Police to enhance community-police engagement. This course brings university students and police together to engage in facilitated dialogue to learn from one another and build trust. Through this transformative educational course, both groups will enhance their knowledge of the structural and cultural frameworks that influence historical and current events and relationships between communities and police.

0101	Rashawn Ray	Seats (Total: 50)
	Tu 4:00pm - 6:30pm	ASY 1213

SOCY245 **The Family in Contemporary American Society**

Credit only granted for: SOCY243 or SOCY245.

This is a course in the sociology of the family as an institutional arena in the United States. Students will become familiar with the empirical patterns and trends, political and cultural debates, and policy issues concerning families - and the major theories and research methods used in the sociological study of the family. The readings include a textbook and a research monograph. To succeed, students will attend lectures and participate in discussion; complete quizzes and in-class writing assignments; and take a midterm and final exam.

0101	Philip Cohen	Seats (Total: 90)
	MW 3:30pm - 4:45pm	SQH 1120

SOCY258L **Special Topics in Study Abroad II; Living Rome: Urban Spaces, Culture, and Identity**

Special topics course taken as part of an approved study abroad program

Contact department for information to register for this course.

SOCY325 **The Sociology of Gender**

Prerequisite: 3 credits in SOCY courses. Cross-listed with: WGSS325. Credit only granted for: SOCY325, WMST325 or WGSS325. Formerly: WMST325.

Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

Contact department for information to register for this course.

SOCY335 **Sociology of Health and Illness**

An exploration of the social model to studying health and illness: how meanings and experiences of health and illness are socially produced. How experiences are shaped by the interaction of external social environments (culture, community) and the internal environment (human body), and by socio-demographic variables (race, class, gender, etc.). Disparities in health and healthcare delivery, medicalization of society, determinants of health, social construction of illness, and the social organization of health care.

0101	Jennifer Ashlock	Seats (Total: 40)
	TuTh 9:30am - 10:45am	ASY 3207

0102	Jennifer Ashlock	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	ASY 3207

SOCY358G **Special Topics in Study Abroad III; Spanish Gender Studies**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SOCY358M **Special Topics in Study Abroad III; Muslims in the West**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SOCY370 **Career Exploration and Professional Development for Sociology Majors**

Restriction: Must be in the Sociology major.

Prepares Sociology majors to make the transition from undergraduate to entering graduate school and/or the professional work world. Topics include career options in Sociology, skills for conducting a job search, resume writing and interview preparation, and the graduate application process.

Restricted to Sociology Majors.

0101	Amy McLaughlin	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ASY 1101

SOCY378 **Undergraduate Teaching Assistantship**

(Perm req)

The Undergraduate Teaching Assistant position offers exceptional Sociology undergraduates the opportunity to actively contribute to the educational process. This hands-on role involves assisting faculty in classroom activities, mentoring fellow students, and supporting academic assignments and assessments. Throughout the course, students develop crucial teaching and communication skills, learn effective time management, and gain valuable teamwork experience. This position not only enhances students' resumes but also equips them with skills vital for future academic and professional roles. This is an individual instruction course; contact the department or instructor to obtain section number.

Contact department for information to register for this course.

SOCY380 **Honors Independent Reading in Sociology**

(Perm req)

Restriction: Permission of BSOS-Sociology department.

This course permits sociology honor students to undertake a program or reading on a particular problem in sociology or a subfield therein. The reading will be done under the supervision of a member of the sociology faculty. Required of sociology honor students.

0101	Nicole De Loatch	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

SOCY381 **Honors Independent Research in Sociology**

(Perm req)

Prerequisite: SOCY380.

This course permits sociology students to define a particular problem in sociology or a subfield therein and to develop a research plan for use as a thesis topic. The work will be done under the supervision of a member of the sociology faculty.

Contact department for information to register for this course.

SOCY383 **Honors Thesis Research**

(Perm req)

Prerequisite: SOCY381.

Student research under the direction of a member of the sociology faculty, culminating in the presentation and defense of a thesis reporting the research.

Contact department for information to register for this course.

SOCY386 **Experiential Learning**

(Perm req)

Restriction: Permission of BSOS-Sociology department; and junior standing or higher.

To register, students must have departmental permission form signed by instructor and by Coordinator of Sociology Undergraduate Program.

Contact department for information to register for this course.

SOCY398Z **Special Topics in Sociology; Blackness in Israeli Popular Culture and Contemporary Art**

Topics of special interest to both sociology majors and non-majors.

Cross-listed with ISRL329Z and AASP398F. Credit only granted for ISRL329Z, AASP398F, or SOCY398Z. This course will review the work of artists of Ethiopian origin who are active in the Israeli art field today and analyze the subjects they deal with in their work in relation to the socio-political change in Israel and the increase in Ethiopian representation in popular culture. We will discuss concepts such as socio-political art, activism through art, and a-political art.

0101	Efrat Yerday	Seats (Total: 35)
	MW 2:00pm - 3:15pm	HBK 0105

SOCY399 **Independent Study in Sociology**

(Perm req)

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

No more than 6 hours of 399 is allowed for credit.

Contact department for information to register for this course.

SOCY399G **Independent Study in Sociology; Social Policy, Social Exclusion**

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

Contact department for information to register for this course.

SOCY411 **Demographic Techniques**

Prerequisite: (SOCY201; or students who have taken courses with comparable content may contact the department); and SOCY410. Or permission of BSOS-Sociology department.

Basic techniques for analyzing population structure and demographic processes, including fertility, mortality and migration.

0101	Michael Rendall	Seats (Total: 29)
	Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	ASY 3207 ONLINE

SOCY424 **Sociology of Race Relations**

Prerequisite: 6 credits in SOCY courses; or permission of the Sociology department. Cross-listed with: AAST424. Credit only granted for: SOCY424 or AAST424.

Encourages sociological thinking about US racial and ethnic minority populations, with a focus on African Americans, Latinos, Asian Americans, and Native Americans. The central concern is to understand and explain racial/ethnic inequality. A wide array of topics are discussed, including prejudice and discrimination, slavery, residential segregation, cultural inequality, skin tone stratification, economic and educational disparities, and assimilation/generational processes.

0101	Wayne Santoro	Seats (Total: 29)
	MW 2:00pm - 3:15pm	TWS 0221

SOCY432 **Social Movements**

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

This course broadens students' understanding of social movements in the United States. Many topics are discussed, including the emergence of social movements, why people join social movements, collective identity, gender, culture, emotions, tactics, repression, and the decline of social movements. Various movements are reviewed, including the civil rights movement, the Chicano movement, the women's movement, the LGBTQ movement, the white power movement, the American Indian movement, and the animal rights movement.

0101	Wayne Santoro	Seats (Total: 29)
	MW 3:30pm - 4:45pm	KNI 1103

SOCY435 **Society, Biology, and Health**

Prerequisite: Must have completed 6 credits in SOCY courses or permission of BSOS Sociology Department.

It is not too far-fetched to speak of the pancreas under capitalism or the proletarian lung. Humans are social beings in physical bodies. In this course, we draw on research studies, podcasts, news articles, and best-selling non-fiction to inform conversation and writing on how various dimensions of human biology influence, and are influenced by, our social and cultural environment. We focus on conceptualizing human behavior as an interplay between both nature and nurture, and consider how this approach changes our understanding of modern social problems. This course is appropriate for students with a range of backgrounds in the social and natural sciences; introductory-level supplemental readings on all necessary biological concepts will be provided.

This is a seminar-style, discussion-based course.

0101	Amelia Branigan	Seats (Total: 29)
	MW 3:30pm - 4:45pm	ASY 3203

SOCY451 **Sociology of Culture**

Prerequisite: 6 credits in SOCY courses; or permission of the department. Credit only granted for: SOCY498C or SOCY451. Formerly: SOCY498C.

Analyzes the relationship between society and culture. How do social forces affect cultural objects and products? How do values and meanings shape individual behavior? How can culture be both a source of domination and resistance? These and other topics will be analyzed to show the role of culture in our lives.

0101	Brian Connor	Seats (Total: 29)
	MWF 2:00pm - 2:50pm	SQH 1103

SOCY456 **Smart Machines and Human Prospects**

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department. Credit only granted for: SOCY416 or SOCY456.

Artificial intelligence is everywhere and never sleeps. It is transforming our social institutions in intended and unintended ways. While scientists debate the feasibility of engineering conscious machines with general intelligence, no one debates that the global race is on to create more potent computers. Through targeted research, discussion, and presentation of findings students will answer a specific question on how, where, and in what ways society is being changed by smart machines.

0101	Robert Pernick	Seats (Total: 29)
	TuTh 9:30am - 10:45am	SQH 1105

SOCY460 **Researching Race, Gender, Class, and Sport**

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department. Credit only granted for: SOCY310 OR SOCY460.

Historically, sports have been exclusionary by race, class and gender. Black athletes, women, and poor populations were excluded. Current discussions centered on sports, athletes, and social justice, leads to important sociological questions to consider and problems to investigate. In this research course, students will critically analyze assumptions, historical relationships, and contemporary issues in sports using an Intersectional conceptual framework. Students will analyze and synthesize original and empirical data for research-based poster presentations; and articulate how interrogating sports allows for innovative and revolutionary thinking as global citizens in various communities.

0101	Kris Marsh	Seats (Total: 34)
	TuTh 9:30am - 10:45am	TWS 0234

SOCY463 **Sociology of Masculinity: How Much Has Masculinity Really Changed?**

Prerequisite: 6 credits in SOCY courses; or permission of BSOS Sociology department.

An examination of the history both feminist social movements and feminist sociology in a specific way. It uses the sociological subfield of men and masculinities as a keyhole through which we will study 'the stalled revolution' for women's equality. Along the way, we will familiarize ourselves with academic and popular reports about changing and contested definitions, ideas, and behaviors of masculinity.

0101	Jeffrey Parsells-Johnson	Seats (Total: 29)
	MW 2:00pm - 3:15pm	ONLINE

SOCY467 **Sociology of Education**

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Sociological analysis of educational institutions and their relation to society: goals and functions, the mechanisms of social control, and the impacts of stratification and social change. Study of the school as a formal organization, and the roles and subcultures of teachers and students.

Contact department for information to register for this course.

SOCY470 **Pregnancy and Parenthood in an Unequal Society**

Prerequisite: 6 credits in SOCY courses; or permission of Sociology Department.

Analysis of patterns in sexual activity, contraceptive use, and unintended pregnancy, and how they reinforce or alleviate socioeconomic, gender, and racial inequalities. Emphasis on the role of healthcare providers and contraceptive access, attitudes about motherhood and contraception, policy interventions, and institutional designs. Social and economic consequences of increasing women's ability to control their fertility.

0101	Monica Caudillo	Seats (Total: 29)
	TuTh 9:30am - 10:45am	ASY 3203

SOCY480 **Researching the Middle East**

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department. Credit only granted for: SOCY498E or SOCY480. Formerly: SOCY498E.

Introduces religion, gender, and politics in the Middle East and North Africa. After an overview of the political and social history the focus will be on methods for carrying out research on fundamental issues facing Middle Eastern societies, including national identity, religion, gender relations and the status of women in the family, politics, education, and labor market.

0101	Mansoor Moaddel	Seats (Total: 29)
	MW 3:30pm - 4:45pm	LEF 2166

SOCY490 **Experimental Research Practicum**

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department. Additional information: This is the first course in the experimental research practicum 2-course sequence.

Hands-on experience in designing, conducting, and analyzing experimental research. Introduces students to causal inference in social scientific research, focusing on experimental designs. Students will get hands-on research experience running experimental studies in the group processes lab. Students will also work with the professor and graduate students in the department to develop a research idea that can be executed in the spring semester.

0101	Long Doan	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	ASY 3207

SOCY498 **Selected Topics in Sociology**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498K **Selected Topics in Sociology; Youth, Resistance, and Social Control**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498L **Selected Topics in Sociology; Global Social Policy**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498P **Selected Topics in Sociology; Sociology of Cities**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498T **Selected Topics in Sociology; Sociology of the Arts**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498U **Selected Topics in Sociology; Sociology of Arts**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY498X **Selected Topics in Sociology; The American Working Class**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

The 21st century has brought dramatic changes to the working class in the United States. Today's workers face a very different economy, politics, demography, and culture than the working class of the mid-20th century. This course will review these changes; contrast them with the position of the American middle class; explore gender, racial, and geographic differences within these changes; and look to possible futures ahead.

0101	Amy McLaughlin, Reeve Vanneman	Seats (Total: 13)
	TuTh 2:00pm - 3:15pm	ASY 2115

SOCY498Y **Selected Topics in Sociology; Explaining Social Change: Fact and Fiction in Understanding Why Our World Looks the Way it Does**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

This course examines large-scale processes of social change that have produced durable and defining aspects of our contemporary world and asks, How did we get here? It focuses on four key issues: how markets and the pursuit of profit came to organize virtually all aspects of material life and restructured societies around social classes; how democratic forms of governance emerged to direct states and the persistent challenges presented by authoritarian rule; how social revolution erupts and what kinds of changes it yields; and how warfare between states can produce varieties of change not necessarily comprehended in the foregoing domains.

0101	Meyer Kestnbaum	Seats (Total: 29)
	TuTh 11:00am - 12:15pm	ASY 3203

SOCY498Z **Selected Topics in Sociology; Pratical Sociology**

Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

Contact department for information to register for this course.

SOCY602 **Statistics For Sociological Research II**

Prerequisite: SOCY601; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor. Credit only granted for: SOCY602 or SURV602.

This course introduces regression analysis using matrix algebra. Topics include bivariate regression, multivariate regression, tests of significance, regression diagnostics, indicator variables, interaction terms, extra sum of squares, and the general linear model. Other topics may be addressed such as logistic regression and path analysis. Statistical programming software may be used.

0101	Monica Caudillo	Seats (Total: 20)
	Tu 12:30pm - 3:00pm	ASY 1101

SOCY616 **Sociology Pro-Seminar**

Restriction: Must be in Sociology (Doctoral) program. Credit only granted for: SOCCY699P or SOCY616. Formerly: SOCY699P.

The proseminar is the guide to Sociology as a profession, and how sociology is practiced here at the University of Maryland. The goal of the course is to help students gain insider knowledge about how to develop sociological knowledge and capabilities, and what it means to practice sociology as a graduate student and beyond. The course will discuss both practical aspects of professional life in general and specific topics of interest.

0101	Kris Marsh	Seats (Total: 20)
	Th 12:00pm - 12:50pm	ASY 2115

SOCY627 **Migration**

Examines theories of immigration and immigrant adaptation, empirical patterns of migration and immigration, the economic and social effects of immigration, as well as immigration policy issues.

0101	Julie Park	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	ASY 1101

SOCY630 **Population and Society**

Selected problems in the field of population; quantitative and qualitative aspects; American and world problems.

0101	Philip Cohen	Seats (Total: 20)
	M 6:30pm - 9:00pm	ASY 1101

SOCY641 **Leadership in Diverse Organizations**

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from either the Sociology Department or Criminology & Criminal Justice Department.

Provides students with a practical understanding of leadership and a framework for understanding three key conditions from which effective leadership emerges: timing, organizational characteristics, and individual characteristics. We will consider different dimensions and/or styles of leadership, as well as the methods effective leaders use to build solidarity within groups and organizations.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

SOCY643 **Power and Status in Organizations**

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from BSOS-Sociology department.

Organizations affect virtually every aspect of modern social life. The impact and reach of public safety organizations--those special entities purportedly designed to maintain order and safety--are particularly influential. Although sociologists, psychologists, economists, and management scholars all examine the workings of status and power within organizations, our perspective will be primarily sociological as we explore how power and status operate within the context of organizations.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program. Golden ID students are not eligible for this section.	

SOCY661 **Social Stratification**

Restriction: Permission of instructor.

Major theoretical and research problems in the sociology of social stratification. The characteristics, correlates, and consequences of class and status stratification; the distribution of power; the relationship of social stratification to ideology and the institutional orders of society.

0101	Collin Mueller	Seats (Total: 20)
	M 3:30pm - 6:00pm	ASY 1101

SOCY699 **Special Social Problems**
Contact department for information to register for this course.

SOCY699M **Special Social Problems; Pro-Seminar for BA/MA Students**

0101	Brian Connor	Seats (Total: 5)
	Contact instructor or department for details.	

SOCY699N **Special Social Problems; Intermediate Sociological Statistics**

0101	Monica Caudillo F 12:00pm - 2:00pm	Seats (Total: 20) LEF 0231

SOCY758 **Advanced Special Topics in Sex Roles**

An intensive review of an area of current interest in the field, including such topics as labor force participation; comparative studies; sex roles and aging; gender socialization.

0101	Liana Sayer Contact instructor or department for details.	Seats (Total: 5)
0102	Kris Marsh Contact instructor or department for details.	Seats (Total: 5)

SOCY789 **Advanced Special Topics in Social Stratification; Race and Ethnicity**

An intensive examination of an area of interest in the field, including such topics as macrostratification; measurement of prestige; institutional variation in status attainment.

0101	Dawn Dow Th 3:30pm - 6:00pm	Seats (Total: 20) ASY 1101

SOCY799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

SOCY898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

SOCY899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SPAN Spanish Spring 2024

SPAN103 **Intensive Elementary Spanish**

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish. Credit only granted for: SPAN102 or SPAN103.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Noelia Mantilla MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 18) JMZ 1117 JMZ 0118

0201	Maria Srur MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 18) JMZ 1120 JMZ 0120
0401	Maria Srur MWF 1:00pm - 1:50pm Tu 1:00pm - 1:50pm	Seats (Total: 18) JMZ 0122 JMZ 0120

SPAN169F **Special Topics in Study Abroad I; El Camino de Santiago de Compostela/ Saint James Way**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169L **Special Topics in Study Abroad I; Spanish Language A1**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169M **Special Topics in Study Abroad I; Spanish Language A2**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169O **Special Topics in Study Abroad I; Beginner Spanish I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169P **Special Topics in Study Abroad I; Beginner Spanish II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169X **Special Topics in Study Abroad I; Elementary Spanish I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169Y **Special Topics in Study Abroad I; Elementary Spanish II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN203 **Intensive Intermediate Spanish**

Prerequisite: SPAN103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Ramiro Caces Barbosa MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 20) JMZ 2122 JMZ 0118
0201	Samuel Aguayo MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 20) JMZ 0122 LEF 0135
0301	Ofelia Montelongo Valencia MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 20) JMZ 1122 JMZ 0120
0401	Ofelia Montelongo Valencia MWF 12:00pm - 12:50pm Th 12:00pm - 12:50pm	Seats (Total: 20) JMZ 2207 JMZ 0120
0501	Ofelia Montelongo Valencia MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 20) JMZ 2207 JMZ 0120

SPAN204 **Spanish Grammar Review**

Prerequisite: SPAN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Spanish.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Jackson Monzon MWF 10:00am - 10:50am	Seats (Total: 18) JMZ 1120
0201	Karina De Sande TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 3120
0301	Jose Magro TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 1120
0401	Jose Magro TuTh 2:00pm - 3:15pm	Seats (Total: 18) JMZ 2207

SPAN207 **Reading and Writing in Spanish**

Prerequisite: Must have completed or be concurrently enrolled in SPAN204; or must have appropriate World Language Placement Test (WLPT) score.

Selected readings with emphasis on reading comprehension and the development of reading strategies. Work in composition writing and a review of selected grammatical topics. Complements material of SPAN204.

0201	Ana Cuevas Albarran MWF 11:00am - 11:50am	Seats (Total: 18) JMZ 1215
0301	Chila Hidalgo MWF 12:00pm - 12:50pm	Seats (Total: 18) JMZ 1120
0401	Isadora Quintana TuTh 11:00am - 12:15pm	Seats (Total: 18) JMZ 0118
0501	Angela Pico Pinto TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 0118

SPAN235 **Issues in Latin American and Caribbean Studies II**

Cross-listed with: LACS235, PORT235. Credit only granted for: LASC235, PORT235, SPAN235, or LACS235. Formerly: LASC235.

Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. Taught in English.

0101	Juan Diaz TuTh 11:00am - 12:15pm	Seats (Total: 30) LEF 1201

SPAN269A **Special Topics in Study Abroad II; B1 Intermediate Level Spanish I**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269B **Special Topics in Study Abroad II; B1 Intermediate Level Spanish II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269I **Special Topics in Study Abroad II; Intensive Intermediate Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269L **Special Topics in Study Abroad II; Spanish Language B1**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269V **Special Topics in Study Abroad II; Identities and Stereotypes in Latin America**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN301 Advanced Grammar and Composition I

Prerequisite: Must have completed or be concurrently enrolled in SPAN207.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

0101	Ana Acedo Garcia MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 2207
0201	Ana Acedo Garcia MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 1224
0401	Jorge Bayas TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 0122
0501	Jorge Bayas TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 1122

SPAN302 Advanced Grammar and Composition II

Prerequisite: SPAN301.

Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

Contact department for information to register for this course.

SPAN303 Approaches to Cultural Materials in the Hispanic World

Prerequisite: SPAN301. Recommended: May elect to take SPAN311 and/or SPAN316 in same semester as SPAN303.

Development of proficiency in critical thought through the reading, viewing, and analytical discussion of major genres and styles of cultural materials selected from Spanish-speaking world. Taught in Spanish.

0101	Andrea Torres Armas MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 3120
0201	Andrea Torres Armas MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 2207
0401	Tatiana Chi Miranda TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 2207

0501	Ligia Gonzalez TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 2123

SPAN306 **Spanish for Heritage Speakers II**

Prerequisite: SPAN206.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical and stylistic devices will be highlighted. Designed for Spanish speakers educated in English. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 2122

SPAN307 **Oral Communication Skills for Heritage Speakers of Spanish**

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Development of techniques for formal public speaking in Spanish. Writing and delivering oral presentations for varied audiences and purposes. Includes strategies for organization, the use of rhetorical patterns, and the development of effective discourse. Designed for Heritage speakers of Spanish with native or near native knowledge of Spanish, but no formal education in Spanish. Taught in Spanish.

0101	Evelyn Canabal-Torres TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 3120

SPAN311 **Advanced Communication I**

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303. Restriction: Must not be a native/fluent speaker of Spanish.

Further development of listening, speaking, and writing skills in Spanish. Opportunity to develop oral and written fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations. Taught in Spanish.

0101	Ana Acedo Garcia MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 3120
0201	Ana Acedo Garcia MWF 1:00pm - 1:50pm	Seats (Total: 20) JMZ 2120
0301	Chris Lewis TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 0103

SPAN316 **Spanish Translation I**

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303.

Translation of texts into Spanish and/or English. Taught in Spanish.

0201	Ginette Eldredge TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 3205

SPAN331 **Spanish Culture, Civilization and Literature I: Medieval Times**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

The exploration of cultures of the Iberian Peninsula from its origins until the 15th century as well as the study of historical and political events that gave rise to the Spanish state. Taught in Spanish.

Contact department for information to register for this course.

SPAN332 **Spanish Culture, Civilization and Literature II: Renaissance and Baroque**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 15th through late 17th centuries, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Ginette Eldredge TuTh 9:30am - 10:45am	Seats (Total: 25) JMZ 2207

SPAN333 **Spanish Culture, Civilization and Literature III: Modern Times**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 17th century through the present day, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Mehl Penrose MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2122

SPAN335 **Cultural History of Seville**

Prerequisite: SPAN301. Recommended: SPAN303.

Cultural History of Seville: An exploration of the Iberian, Mediterranean, and transatlantic contexts shaping the history, identity, and cultural and artistic expressions of Seville. Includes texts from the Middle Ages to the twenty first century. Focus on the historical, literary and cultural evolution of Seville from the Roman Empire and the Moorish occupation to the discovery and conquest of America until present times. Taught in Spanish.

Contact department for information to register for this course.

SPAN359E **Spanish for the Professions; Performing U.S. Latina/e/o Experiences**

Exploration of cultural and linguistic skills for different professional contexts including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

This course is an introduction to the ways that Latina/e/o artists and activists have used music, literature, theater, performance art, film, and social media to document, represent, and engage with their communities as they have shown up and spoken out throughout the United States.

0101	Chris Lewis	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 2122

SPAN359P **Spanish for the Professions; Spanish in Politics**

Exploration of cultural and linguistic skills for different professional contexts including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

This course is designed to strengthen communication and critical thinking skills to understand and analyze political and international issues. Taught in Spanish, this course provides approaches to historical and cultural contexts in order to engage in class discussions on issues that affect the Hispanic/Latino world, Hispanics in the US, and the region's relationship with the US. Among others, these will include migration, the growing fascination with fascism, strengthening democratic institutions, and voting rights. Assignments will include practical engagement with, for instance, Spanish-speaking stakeholders.

0101	Saul Sosnowski	Seats (Total: 25)
	MW 11:00am - 12:15pm	JMZ 0125

SPAN361 **Latin American Literatures and Cultures I: From Pre-Columbian to Colonial Times**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Overview of cultural history of Latin America from pre-Columbian civilizations to the Colonial period, exploring the foundations of the Spanish American cultural and literary tradition to approximately 1770. Taught in Spanish.

Contact department for information to register for this course.

SPAN362 **Latin American Literatures and Cultures II: From Independence to Nation Formation**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the 18th Century to approximately 1900, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Chila Hidalgo	Seats (Total: 25)
	MWF 10:00am - 10:50am	JMZ 2123

0201	Laura Demaria TuTh 9:30am - 10:45am	Seats (Total: 25) JMZ 2122

SPAN363 **Latin American Literatures and Cultures III: From Modernism to Neo-Liberalism**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the late 19th through the early 21st centuries, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Saul Sosnowski MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2207
0201	Juan Carlos Quintero-Herencia TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 2122

SPAN369A **Special Topics in Study Abroad III; Advanced Oral Communication in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369B **Special Topics in Study Abroad III; Advanced Academic Writing in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369F **Special Topics in Study Abroad III; Spanish Oral Skills through Theatre**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369G **Special Topics in Study Abroad III; Spanish for the Health Professional**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369I **Special Topics in Study Abroad III; Advanced Studies in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369M **Special Topics in Study Abroad III; Spanish Language B2**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369O **Special Topics in Study Abroad III; Spanish Conversation and Oral Skills**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Q **Special Topics in Study Abroad III; Spanish Phonetics and Phonology**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369R **Special Topics in Study Abroad III; Advanced Reading Skills in Spanish**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369T **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369V **Special Topics in Study Abroad III; Advanced Present-Day Spanish Usage**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369W **Special Topics in Study Abroad III; Spanish Stylistics: Advanced Spanish Writing and Stylistics**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Y **Special Topics in Study Abroad III; B2 Advanced Level Spanish 1**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Z **Special Topics in Study Abroad III; B2 Advanced Level Spanish 2**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN370 **Spanish for Business I**

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN315 or SPAN370. Formerly: SPAN315.

Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of Spanish commercial topics. May include exposure to Spanish commercial topics. May include exposure to Spanish business environments. Taught in Spanish.

0101	Maria Herrera Arvay	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 2207

SPAN371 **Spanish for the Health Professions**

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Exploration of cultural and linguistic skills for the health professions including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

0101	Evelyn Canabal-Torres MWF 12:00pm - 12:50pm	Seats (Total: 25) JMZ 2122

SPAN373 **Spanish in the Media**

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Or permission of instructor. Credit only granted for: SPAN373 or SPAN359A. Formerly: SPAN359A.

Exploration of Spanish in current events in the Hispanic world in local and international press and varied media, and production of journalistic articles.

0101	Chila Hidalgo MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 2123

SPAN386 **Experiential Learning**

(Perm req)

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SPAN388W **Writing Center Internship**

(Perm req)

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: ENGL388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/ internship. Cross-listed with ENGL388W. Credit only greanted for ENGL388W or SPAN388W. Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course a gain in subsequent semesters, students should register for 2001.

0101	Thomas Earles M 3:30pm - 6:00pm	Seats (Total: 20) TWS 0224
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

SPAN399 **Independent Study in Spanish**

(Perm req)

Specific readings in literature or a translation project under the supervision of a faculty member of the department.

Prerequisite: permission of department.

Contact department for information to register for this course.

SPAN401 Advanced Composition I

Prerequisite: SPAN302; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN402 Advanced Composition II

Prerequisite: SPAN401; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN408J Special Topics in Iberian and Latin American Studies; Contemporary Mexican Literature

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408N Special Topics in Iberian and Latin American Studies; Love, Science, Religion and the Pursuit of Criollo Independeence in 18th-Century Mexico

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408Y Special Topics in Iberian and Latin American Studies; Contemporary Spanish Short Story

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN408Z Special Topics in Iberian and Latin American Studies; 20th Century Contemporary Latin American Cinema

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409F Great Themes of the Hispanic Literatures; Literary Myths and Philosophy in the European Tradition

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409M **Great Themes of the Hispanic Literatures; Contemporary Spain through Spanish Cinema**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409N **Great Themes of the Hispanic Literatures; 20th Century Spanish History and Cinema**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409O **Great Themes of the Hispanic Literatures; Images of Spain in Contemporary Cinema**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409W **Great Themes of the Hispanic Literatures; Women Writers of Spain**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Y **Great Themes of the Hispanic Literatures; Filmmaking in Spain**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Z **Great Themes of the Hispanic Literatures; Spanish Film and Theatre**

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN422 **Intercultural Communication and Negotiation**

Prerequisite: SPAN370 OR SPAN371 OR SPAN373 OR SPAN 374. Restriction: Junior standing or higher.

Focuses on the relationship of language and culture of those operating in world markets. Particular attention will be given to intercultural communication, linguistic systems, culture specific perceptions of, and negotiation with, the Spanish-speaking world. Taught in Spanish.

Contact department for information to register for this course.

SPAN426 **Hispanic Linguistics III: Language in Use**

Prerequisite: SPAN303; and SPAN311 or SPAN316 or SPAN325. Also offered as: SPAN626. Credit only granted for: SPAN426 or SPAN626.

Designed for students without previous experience in Linguistics. Focus on language variation and use, linguistic change, and bilingualism. Taught in Spanish.

0101	Manel Lacorte	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JMZ 2123

SPAN431 **Mexican Women Writers**

Prerequisite: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Credit only granted for: SPAN431 or SPAN408G. Formerly: SPAN408G.

Focuses on Mexican women writers from the colonial period to the present. It consists of various types of texts, including poetry, short story, essay, and novel. Its principal themes include the relations among experience, knowledge, and expression; the presence or absence of women in literary histories, including Wikipedia pages; feminism; and the opportunities and challenges presented by the category of women writers. Taught in Spanish.

0101	Ryan Long	Seats (Total: 25)
	MWF 11:00am - 11:50am	JMZ 2123

SPAN449A **Special Topics in Spanish Civilization; Spanish Civilization**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449C **Special Topics in Spanish Civilization; History of Spain II: 20th Century**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449J **Special Topics in Spanish Civilization; Mosaic: Jews, Muslims and the Spanish Experience**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449M **Special Topics in Spanish Civilization; Barcelona and Madrid: Contemporary Film and Theatre**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Q **Special Topics in Spanish Civilization; 20th Century History of Spain and the Basque Country**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Z **Special Topics in Spanish Civilization; Literature and Cinema in the Contemporary City**

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN451 **Paradise Lost: Cuban Cinematic Culture**

Prerequisite: One course from SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Credit only granted for: SPAN451 or SPAN408P. Formerly: SPAN408P.

Explores the cinematic journey of the Cuban revolution from socialist utopia to bitter disillusionment. Taking as a point of departure the national postulates of an "Imperfect Cinema" and the different theorizations of "New Latin American cinema," the course will concentrate on the emergence and development of Cuban cinematic culture that has taken place during the revolution. Our objective is to explore how art and politics collide to reveal contested visions of a social process. Visual materials will include films and documentaries. Readings will include selections from historiographic and literary works, as well as contemporary critical studies. Taught in Spanish

0101	Eyda Merediz	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 2122

SPAN452 **Reflecting on Neoliberalism and Contemporary Southern Cone Culture**

Prerequisite: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Credit only granted for: SPAN452 or SPAN448T. Formerly: SPAN448T.

An exploration of how neoliberalism and its market-driven economy have shaped Latin American culture of the last decades. In particular, we will explore how contemporary cultural artifacts are inscribed into a value system that quantifies the unquantifiable, that is to say, a system that only values a book or an artist based on sales. In this class, we will work with a variety of cultural artifacts from Argentina, Chile, and Uruguay--films, chronicles, music, newspapers, cartoons, literature, and documentaries--to map how culture and markets intersect. Taught in Spanish.

0101	Laura Demaria	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 2123

SPAN462 **Twentieth Century Drama**

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Significant plays of the twentieth century.

Contact department for information to register for this course.

SPAN464 **Contemporary Spanish Poetry**

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Spanish poetry from the generation of 1927 to the present.

Contact department for information to register for this course.

SPAN466 **The Contemporary Spanish Novel**

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

The novel and the short story from 1940 to the present.

Contact department for information to register for this course.

SPAN469A **Study Abroad Special Topics IV; Advanced Topics in Spanish Language**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN469C **Study Abroad Special Topics IV; Composition**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN469F **Study Abroad Special Topics IV**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN478I **Special Topics in United States Latino Cultures; Community Interpreting: The Intersection of Language Access,Advocacy & Autonomy**

Explores special topics in US Latino Cultures, ranging from Chicano, Nuyorican, Cuban-American, Dominican, Central-American and other border cultural identities.

This course provides a practical and engaging approach for students to expand their knowledge around the concept of language access, to contextualize language advocacy and justice, and to apply the fundamentals of communicative autonomy. Students will explore the world of community interpreting, inclusive of ethics and effective practices, through engagement in meaningful communicative activities and reflection.Taught in Spanish and English. An ACTFL/OPI Advanced-Low level in both Spanish and English according to ACTFL Guidelines is strongly recommended for successful participation in this course.

0101	Jennifer Love	Seats (Total: 25)
	W 5:00pm - 7:30pm	JMZ 2206

SPAN479 **Honors Thesis**

(Perm req)

Researching and writing an honors thesis under the direction of a professor.

Contact department for information to register for this course.

SPAN495 **Honors Reading**

Prerequisite: Must be in Spanish and Portuguese Honors; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Supervised reading.

Contact department for information to register for this course.

SPAN626 **Hispanic Linguistics II: Language in Use**

Prerequisite: SPAN301; or permission of ARHU-School of Languages, Literatures, and Cultures department. Jointly offered with SPAN426. Credit only granted for: SPAN426 or SPAN626.

This course will focus on issues related to language variation and use with a more in-depth analysis of the semantics, pragmatics, and sociolinguistics of Spanish. Students will be introduced to current research in the fields of dialectology, bilingualism and language policy, and the social aspects of language change. This course will include an analysis of current research as it relates to the field of linguistics and other social sciences.

0101	Manel Lacorte	Seats (Total: 25)
	TuTh 9:30am - 10:45am	JMZ 2123

SPAN699 **Independent Study in Spanish**

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPAN798J **Open Seminar; Ghettos and Peripheries:From th Iberian Hinge to an UnhingedReality**

This seminar explores the poetic topology of Iberia from the perspective of marginal(ized) cultures in a multifaceted contemporary context. While the Spanish background is ever present, the focus is on Basque, Catalan, Galician, Calo, Sefardi, and hood hubs with their new migratorypat terns. Because the landscape is so vast, the first iteration will focus on pairs of poets speaking in closely related language(s) and about comparable quests: Cunqueiro, Aresti, Margarit, Camaron as contrasted with Yolanda Castano, Bernardo Atxaga, Mireia Calafell, or Maria Terremoto.

0101	Juan Uriagereka	Seats (Total: 10)
	M 5:00pm - 7:30pm	JMZ 2125

SPAN798K **Open Seminar; Archipelago: Literature and Politics in the Caribbean**

This graduate seminar conducted in Spanish will discuss the existential singularity of the literature-politics coupling in the Caribbean. The seminar will explore ways of de-framing and un-disciplining the hegemonic university discourse that instrumentalizes the archipelago poetics and specificities. Our conversations want to think about the ways literary enunciation, marked by the Caribbean archipelagic experience, intervenespolitically or abandon the scene of hegemonic politics. Focus is placed on the terms and images of existing in, or passing through, the Caribbean. It will be dedicated to rethinking thisproblem through a limited series of texts written by Caribbean authors in the 20th and 21st centuries.

0101	Juan Carlos Quintero-Herencia	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	JMZ 2125

SPAN798P **Open Seminar; Central American Futurities and Pasts**

This course examines imaginings of Central American futurities and pasts, from the Popul Vuh to Territorios Olvidados and beyond. Key questions focus on de/coloniality, extractivism, war, violence, waste, migration, AI, and the (post)human. Genres explored include Central American extreme realism, speculative fiction, science fiction, and eco-horror. Authors include among others: Gioconda Belli, Ernesto Cardenal, Horacio Castellanos Moya, Ruben Dario, Carlos Gagini, Jorge Galan, Franz Galich,Pedro Gaspar Gonzalez, Claudia Hernandez, Alvaro Menendez Leal, Tatiana Lobo, Rodrigo Rey Rosa, Salarrue, Maximo Soto Hall, and Ramon Varela Morales. Readings in Spanish and English.

0101	Ana Rodriguez Th 5:00pm - 7:30pm	Seats (Total: 10) JMZ 2125	

SPAN799 **Master's Thesis Research**
Contact department for information to register for this course.

SPAN898 **Pre-Candidacy Research**
Contact department for information to register for this course.

SPAN899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

SPHL Public Health Spring 2024

SPHL100 **Foundations of Public Health**

Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0102	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion

0103	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0104	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0105	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0106	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0107	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0108	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 20) HJP 0226 ONLINE SPH 0227	Discussion
0201	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion
0202	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion

0203	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion
0204	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion
0205	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion
0206	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion
0207	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion
0208	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0307	Discussion

SPHL321 **Terrapin Think Tank**

1 credit course for student working with the SPH Office of Public Health Practice as Terrapin Think Tank members.

0101	Tracy Zeeger Tu 7:00pm - 8:30pm	Seats (Total: 10) Location: TBA	

SPHL333 **Fundamentals of Undergraduate Teaching for Education Assistants and Mentors (UTEAM)**

(Perm req)

Corequisite: SPHL399. Restriction: Permission of the instructor; and permission of the School of Public Health. Additional information: This course must be taken concurrently with SPHL399 the first term in which a student is a UTA. Preference is given to students within an SPHL major.

Supports the professional and personal development of UG students in the UTEAM program. Must be completed concurrently with the first semester of providing UTEAM support to a specific course. UTEAM members are dedicated student learners who provide peer education support for specific course as part of the teaching team and emphasizes: 1) introduction to teaching, learning, literature and practice, 2) collaboration with other UTEAM members, faculty and staff as a learning community, and 3) reflection on the knowledge and skills developed through course participation.

0101	Cynthia Kershaw	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

SPHL399 **Academic Peer Teaching and Mentoring in Public Health**

An independent study course for the Undergraduate Teaching and Mentoring (UTEAM) program within the School of Public Health. Students will apply evidence-based research while assisting peers with the understanding and application of course content. Specific responsibilities may vary dependent upon the course instructor. The primary roles of the UTEAM members will be to provide in-class support and/or external course support through review sessions, discussions sessions, laboratory support, group tutoring and office hours.

Contact department for information to register for this course.

SPHL478 **Special Topics in Public Health**

Special topics in the field of public health.

0101	Tracy Zeeger	Seats (Total: 10)
	Tu 7:00pm - 8:30pm	SPH 0116A

SPHL498T **Special Topics in Public Health; Terrapin Think Tank Fellows Course**

Topical and interdisciplinary courses of interest to upper level undergraduate students in the field of Public Health not currently covered by the program.

This course serves as a broad introduction to Terrapin Think Tank. Students will learn the basic core competencies we use in health policy research, advocacy, and evaluation. Students will be introduced to policy structures at county- and state-level, key players, and best practices in designing policies and interventions that are sustainable and truly community-centric. Students will also have the opportunity to build out an original initiative, program, or piece of legislation over the course of the semester which will culminate in a final presentation with community and faculty leaders.

0101	Instructor: TBA	Seats (Total: 10)
	Tu 6:30pm - 8:00pm	SPH 0301

SPHL600 **Foundations of Public Health**

Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that taken into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard Class time/details on ELMs Th 3:00pm - 4:00pm	Seats (Total: 8) ONLINE ATL 1106	 Discussion

SPHL610 **Program and Policy Planning, Implementation, and Evaluation**

Recommended: Completion of SPHL 601, 602, and 603 with a grade of B- or better in each. Note that completion of SPHL 601, 602, and 603 with a B- or better is a graduation requirement for the MPH/MHA degrees; and concurrent enrollment in SPHL 611. Restriction: Must be in a graduate student in SPHL-School of Public Health.

This second course in the MPH/MHA integrated core sequence will prepare students to engage in the important tasks of assessing population and patient needs, implementing and evaluating culturally appropriate public health programs, policies, and interventions, and pursuing appropriate resources to support activities through the policy process and via effective use of power in the face of competing interests. The course will be a mix of individual and team-based assignments based upon an existing or newly identified problem, in addition to case studies, interactive simulations, and applied writing assignments.

0101	Danielle Catona M 4:15pm - 6:15pm Class time/details on ELMs M 6:30pm - 8:30pm	Seats (Total: 22) SPH 1312 ONLINE SPH 0302	 Discussion
0102	Danielle Catona M 4:15pm - 6:15pm Class time/details on ELMs M 6:30pm - 8:30pm	Seats (Total: 22) SPH 1312 ONLINE SPH 0303	 Discussion
0103	Danielle Catona M 4:15pm - 6:15pm Class time/details on ELMs M 6:30pm - 8:30pm	Seats (Total: 22) SPH 1312 ONLINE SPH 0305	 Discussion
0104	Danielle Catona M 4:15pm - 6:15pm Class time/details on ELMs M 6:30pm - 8:30pm	Seats (Total: 22) SPH 1312 ONLINE SPH 0307	 Discussion

PLB1	Steven Ault, Priscilla Novak	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	
PLH1	Priscilla Novak, Steven Ault	Seats (Total: 28)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.	
PLK1	Priscilla Novak, Steven Ault	Seats (Total: 5)
	Class time/details on ELMs	ONLINE
	Must be in Physical Activity, Online (MPH). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

SPHL611 **Public Health Ethics**

Prerequisite: Must have completed SPHL601; or permission of instructor. Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y, or SPHL611.. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health practitioners.

0101	Danielle Catona	Seats (Total: 45)
	Meets January 24, 2024 - March 13, 2024	
	W 4:15pm - 6:15pm	SPH 0302
	Class time/details on ELMs	ONLINE
0201	Danielle Catona	Seats (Total: 45)
	Meets March 14, 2024 - May 9, 2024	
	W 4:15pm - 6:15pm	SPH 0302
	Class time/details on ELMs	ONLINE
PLB1	Evelyn King-Marshall	Seats (Total: 20)
	Meets January 24, 2024 - March 13, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.	

PLH1	Evelyn King-Marshall **Meets January 24, 2024 - March 13, 2024** Class time/details on ELMs *Must be in Public Health Practice and Policy, Online. Golden ID students are not eligible for this section.*	Seats (Total: 28) ONLINE
PLK1	Evelyn King-Marshall **Meets January 24, 2024 - March 13, 2024** Class time/details on ELMs *Must be in Physical Activity, Online (MPH). All other graduate students must request permission. Contact exst@umd.edu. Golden ID students are not eligible for this section.*	Seats (Total: 5) ONLINE

SPHL612 **Research Ethics**

Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y or SPHL612. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health researchers.

0101	James Hagberg **Meets January 24, 2024 - March 8, 2024** F 9:00am - 10:50am	Seats (Total: 12) SPH 0303

STAT Statistics and Probability Spring 2024

STAT100 **Elementary Statistics and Probability**

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any STAT course with a prerequisite of MATH141. Cross-listed with: DATA100. Credit only granted for: DATA100 or STAT100.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin MWF 10:00am - 10:50am M 11:00am - 12:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion
0112	Matthew Griffin MWF 10:00am - 10:50am M 12:30pm - 1:45pm	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion

0121	Matthew Griffin MWF 10:00am - 10:50am Tu 9:30am - 10:45am	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion
0122	Matthew Griffin MWF 10:00am - 10:50am Tu 11:00am - 12:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion
0123	Matthew Griffin MWF 10:00am - 10:50am Tu 12:30pm - 1:45pm	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion
0124	Matthew Griffin MWF 10:00am - 10:50am Tu 2:00pm - 3:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion
0131	Matthew Griffin MWF 10:00am - 10:50am W 11:00am - 12:15pm	Seats (Total: 24) ESJ 0224 PHY 4206	 Discussion
0132	Matthew Griffin MWF 10:00am - 10:50am W 12:30pm - 1:45pm	Seats (Total: 20) ESJ 0224 PHY 4206	 Discussion
0141	Matthew Griffin MWF 10:00am - 10:50am Th 12:30pm - 1:45pm	Seats (Total: 25) ESJ 0224 PHY 4206	 Discussion
0142	Matthew Griffin MWF 10:00am - 10:50am Th 2:00pm - 3:15pm	Seats (Total: 17) ESJ 0224 PHY 4206	 Discussion
0211	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	 Discussion
0212	Matthew Griffin MWF 12:00pm - 12:50pm M 2:00pm - 3:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	 Discussion

0221	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 29) ESJ 0202 PHY 1219	Discussion
0222	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 WDS 0104	Discussion
0223	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 29) ESJ 0202 PHY 2211	Discussion
0224	Matthew Griffin MWF 12:00pm - 12:50pm Tu 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0231	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0241	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 27) ESJ 0202 PHY 4206	Discussion
0311	Jonathan Fernandes MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 27) ESJ 0202 MTH B0423	Discussion
0312	Jonathan Fernandes MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 27) ESJ 0202 MTH B0423	Discussion
0321	Jonathan Fernandes MWF 2:00pm - 2:50pm W 11:00am - 12:15pm	Seats (Total: 27) ESJ 0202 MTH B0423	Discussion
0322	Jonathan Fernandes MWF 2:00pm - 2:50pm W 12:30pm - 1:45pm	Seats (Total: 27) ESJ 0202 MTH B0423	Discussion

0331	Jonathan Fernandes MWF 2:00pm - 2:50pm Th 9:30am - 10:45am	Seats (Total: 27) ESJ 0202 EGR 3102	Discussion
0332	Jonathan Fernandes MWF 2:00pm - 2:50pm Th 11:00am - 12:15pm	Seats (Total: 27) ESJ 0202 MTH 0104	Discussion

STAT110 **Applications of R for Data Science**

Prerequisite: DATA100, STAT100, or MATH135; or any 400-level STAT course. Cross-listed with: DATA110. Credit only granted for: STAT110 or DATA110.

Intended to prepare students for subsequent courses requiring computation with R, providing powerful and easy to use tools for statistical data analysis. Covers basics of R and R Studio including file handling, data simulation, graphical displays, vector and function operations, probability distributions, and inferential techniques for data analysis.

0101	Susan Mazzullo **Meets January 24, 2024 - March 13, 2024** Contact instructor or department for details.	Seats (Total: 190)

STAT386 **Experiential Learning**

(Perm req)

Prerequisite: Must have learning proposal approved by the CMNS-Mathematics Department.

Contact department for information to register for this course.

STAT400 **Applied Probability and Statistics I**

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Cross-listed with: DATA400. Credit only granted for: DATA400, ENEE324, or STAT400. Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Jonathan Fernandes MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0112	Jonathan Fernandes MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 30) ARM 0131 MTH 0106	Discussion

0121	Jonathan Fernandes MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0122	Jonathan Fernandes MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 30) ARM 0131 MTH 0106	Discussion
0123	Jonathan Fernandes MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 30) ARM 0131 MTH 0405	Discussion
0131	Jonathan Fernandes MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0132	Jonathan Fernandes MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH 0106	Discussion
0141	Jonathan Fernandes MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 30) ARM 0131 HBK 0103	Discussion
0142	Jonathan Fernandes MWF 10:00am - 10:50am Tu 12:00pm - 12:50pm	Seats (Total: 30) ARM 0131 MTH 0304	Discussion
0211	Matthias Wellershoff TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0401	Discussion
0212	Matthias Wellershoff TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0221	Matthias Wellershoff TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0401	Discussion

0222	Matthias Wellershoff TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0223	Matthias Wellershoff TuTh 9:30am - 10:45am W 12:00pm - 12:50pm	Seats (Total: 30) ARM 0126 MTH 0409	Discussion
0231	Matthias Wellershoff TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH 0401	Discussion
0232	Matthias Wellershoff TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0241	Matthias Wellershoff TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0242	Matthias Wellershoff TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0311	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 8:00am - 8:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0312	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 8:00am - 8:50am	Seats (Total: 30) ARM 0135 MTH 0303	Discussion
0321	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0322	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) ARM 0135 MTH 0303	Discussion

0323	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 30) ARM 0135 MTH 0104	Discussion
0331	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0332	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 30) ARM 0135 MTH 0303	Discussion
0341	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0342	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0411	Fushuai Jiang MWF 10:00am - 10:50am Th 9:00am - 9:50am	Seats (Total: 30) MMH 1400 MTH 0304	Discussion
0421	Fushuai Jiang MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 30) MMH 1400 MTH 0304	Discussion
0431	Fushuai Jiang MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MTH 0304	Discussion
0432	Fushuai Jiang MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MTH B0427	Discussion
0441	Fushuai Jiang MWF 10:00am - 10:50am Th 12:00pm - 12:50pm	Seats (Total: 30) MMH 1400 MTH 0304	Discussion

0442	Fushuai Jiang MWF 10:00am - 10:50am Th 12:00pm - 12:50pm	Seats (Total: 30) MMH 1400 MTH B0427	Discussion

STAT401 **Applied Probability and Statistics II**

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410). Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Point estimation - unbiased and consistent estimators. Interval estimation. Minimum variance and maximum likelihood estimators. Testing of hypotheses. Regression, correlation and analysis of variance. Sampling distributions. Elements of non-parametric methods.

0111	Francesco Gaffi TuTh 12:30pm - 1:45pm	Seats (Total: 35) MTH B0421
0301	Jonathan DeWitt MWF 11:00am - 11:50am	Seats (Total: 34) MTH 0101
0401	Archana Khurana MWF 2:00pm - 2:50pm	Seats (Total: 34) PHY 2124
0501	Takumi Saegusa TuTh 2:00pm - 3:15pm	Seats (Total: 34) HBK 0105
0601	Matthias Wellershoff TuTh 12:30pm - 1:45pm	Seats (Total: 34) MTH 0303

STAT410 **Introduction to Probability Theory**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: SURV410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0101	Mestiyage Gunatilleka TuTh 12:30pm - 1:45pm	Seats (Total: 35) SYM 0215
0201	Wiseley Wong MWF 10:00am - 10:50am	Seats (Total: 33) EGR 1104
0301	Lutian Zhao MWF 11:00am - 11:50am	Seats (Total: 36) PHY 2211

0401	Dong Quan Nguyen MWF 2:00pm - 2:50pm	Seats (Total: 33) PHY 2211
0501	Takumi Saegusa TuTh 11:00am - 12:15pm	Seats (Total: 33) MTH B0421
0601	Yu Gu TuTh 2:00pm - 3:15pm	Seats (Total: 33) PHY 2213

STAT420 **Theory and Methods of Statistics**

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with: SURV420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Jonathan Fernandes MWF 12:00pm - 12:50pm	Seats (Total: 35) MTH B0421
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 35) PHY 2214

STAT426 **Introduction to Data Science and Machine Learning**

Prerequisite: Minimum grade of C- in MATH241 or MATH340; and minimum grade of C- in MATH240, MATH461 or MATH341; and minimum grade of C- in STAT400 or STAT410; students who have taken courses with content comparable to STAT400/410 may request permission of the instructor. Credit only granted for: STAT426 or CMSC320.

An introductory course to the recent developments in the fields of data science and machine learning. Emphasis will be given to mathematical and statistical understanding of commonly used methods and processes.

0101	Fushuai Jiang MWF 12:00pm - 12:50pm	Seats (Total: 30) MTH 0306

STAT430 **Introduction to Statistical Computing with SAS**

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410); and must have completed or be concurrently enrolled in STAT401 or STAT420; students who do not meet the STAT401 or STAT420 requirement but who have taken a statistics course may contact the math department to confirm eligibility.

Descriptive and inferential statistics. SAS software: numerical and graphical data summaries; merging, sorting and splitting data sets. Least squares, regression, graphics and informal diagnostics, interpreting results. Categorical data, lifetime data, time series. Applications to engineering, life science, business and social science.

0101	Hatice Sahinoglu MWF 10:00am - 10:50am	Seats (Total: 33) MTH 0103
0201	Timothy Pilachowski MWF 11:00am - 11:50am	Seats (Total: 34) MTH 0103
0301	Hatice Sahinoglu MWF 1:00pm - 1:50pm	Seats (Total: 28) MTH B0429
0501	Christine Nickel TuTh 5:00pm - 6:15pm	Seats (Total: 36) PHY 2124

STAT440 Sampling Theory

Prerequisite: 1 course with a minimum grade of C- from (STAT401, STAT420). Credit only granted for: STAT440 or SURV440.

Simple random sampling. Sampling for proportions. Estimation of sample size. Sampling with varying probabilities. Sampling: stratified, systematic, cluster, double, sequential, incomplete.

0101	Natalia Tchetcherina MWF 10:00am - 10:50am	Seats (Total: 34) MTH 0306
0201	Natalia Tchetcherina MWF 11:00am - 11:50am	Seats (Total: 34) MTH 0306

STAT464 Introduction to Biostatistics

Prerequisite: Must have completed one semester of calculus. Restriction: Junior standing or higher. Credit only granted for: BIOE372 or STAT464. Additional information: Not acceptable toward degrees in MATH/STAT.

Probabilistic models. Sampling. Some applications of probability in genetics. Experimental designs. Estimation of effects of treatments. Comparative experiments. Fisher-Irwin test. Wilcoxon tests for paired comparisons.

0201	Raluca Rosca MWF 11:00am - 11:50am	Seats (Total: 25) MTH B0421

STAT470 Actuarial Mathematics

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Recommended: STAT400.

Major mathematical ideas involved in calculation of life insurance premiums, including compound interest and present valuation of future income streams; probability distribution and expected values derived from life tables; the interpolation of probability distributions from values estimated at one-year multiples; the 'Law of Large Numbers' describing the regular probabilistic behavior of large populations of independent individuals; and the detailed calculation of expected present values arising in insurance problems.

0101	Natalia Tchetcherina MWF 1:00pm - 1:50pm	Seats (Total: 28) MTH 0409
0201	Matthew Griffin MWF 2:00pm - 2:50pm	Seats (Total: 40) CSI 2117

STAT498A **Selected Topics in Statistics**

(Perm req)

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Contact department for information to register for this course.

STAT601 **Probability Theory II**

Prerequisite: STAT600.

Weak convergence of measures; characteristic functions; Central Limit Theorem and local limit theorem; stable laws; Kolmogorov consistency theorem (without proof); conditional expectations and martingales; optimal stopping theorem; convergence of martingales; Brownian motion; Markov processes and families; stochastic integral and Ito formula.

Offered Spring only.

0101	Dmitry Dolgopyat TuTh 9:30am - 10:45am	Seats (Total: 18) MTH B0429

STAT650 **Applied Stochastic Processes**

Prerequisite: STAT410; or students who have taken courses with comparable content may contact the department.

Basic concepts of stochastic processes. Markov processes (discrete and continuous parameters), Random walks, Poisson processes, Birth and death processes. Renewal processes and basic limit theorems. Discrete time martingales, stopping times, optional sampling theorem. Applications from theories of stochastic epidemics, survival analysis and others.

0101	Vincent Lyzinski	Seats (Total: 25)
	MWF 2:00pm - 2:50pm	MTH 0201

STAT689 **Research Interactions in Statistics**

(Perm req)

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

STAT701 **Mathematical Statistics II**

Prerequisite: STAT700; or students who have taken courses with comparable content may contact the department.

Testing hypotheses: parametric methods. Neyman-Pearson lemma. Uniformly most powerful tests. Unbiased tests. Locally optimal tests. Large sample theory, asymptotically best procedures. Nonparametric methods, Wilcoxon, Fisher-Yates, median tests. Linear models, analysis of variance, regression and correlation. Sequential analysis.

Offered Spring only.

0101	Joan Ren	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH 0407

STAT707 **Bayesian Statistics**

Prerequisite: STAT700; or permission of instructor . Credit only granted for: STAT700 or STAT818B. Formerly: STAT818B.

The essentials of Bayesian statistics with some advanced topics. Basic statistical decision theory. Bayesian paradigm. Prior and posterior distributions. Conjugate family. Hierarchical models. Bayesian linear regression. Bayes factors. Markov chain Monte Carlo. Metropolis-Hastings algorithm. Gibbs sampler. Bernstein von-Mise theorem. Posterior consistency. Potential advanced topics include variational Bayes, empirical Bayes, Bayesian inference of high-dimensional data and Bayesian non-parametric inference.

0101	Partha Lahiri	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	LEF 2208

STAT741 **Linear Statistical Models II**

Prerequisite: STAT740.

Continuation of STAT 740. Multiway layouts, incomplete designs, Latin squares, complete and fractional factorial designs, crossed and nested models. Balanced random effects models, mixed models, repeated measures.General mixed model, computational algorithms, ML and REML estimates. Generalized linear models, logistic and loglinear regression.

Offered Spring only.

0101	Lizhen Lin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	EGR 1102

STAT770 **Analysis of Categorical Data**

Prerequisite: STAT430 and STAT420; or permission of CMNS-Mathematics department.

Loglinear and logistic models. Single classification, two-way classification; contingency tables; tests of homogeneity and independence models, measures of association, distribution theory. Bayesian methods. Incomplete contingency tables. Square contingency tables - symmetry. Extensions to higher dimensional contingency tables.

0101	Eric Slud	Seats (Total: 25)
	MWF 9:00am - 9:50am	PHY 2208

STAT799 **Master's Thesis Research**
Contact department for information to register for this course.

STAT808A **Selected Topics in Probability**

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818A **Selected Topics in Statistics**

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818O **Selected Topics in Statistics; Introduction to Stochastic Partial Differential Equations**

Advanced topics of current interest.

0101	Sandra Cerrai	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 0102

STAT898 **Pre-Candidacy Research**
Contact department for information to register for this course.

STAT899 **Doctoral Dissertation Research**
(Perm req)

Contact department for information to register for this course.

SURV400 **Fundamentals of Survey and Data Science**

(Perm req)

Prerequisite: STAT100; or permission of BSOS-Joint Program in Survey Methodology department. Restriction: Course open to SURV certificate students, SURV Advanced Special Students, and SURV undergraduate minors. Graduate students from other departments may enroll with permission from the department. Credit only granted for: SURV699M or SURV400. Formerly: SURV699M.

The course introduces the student to a set of principles of survey and data science that are the basis of standard practices in these fields. The course exposes the student to key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. It will also present a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

0101	Robyn Ferg MW 2:00pm - 3:15pm	Seats (Total: 20) LEF 2208

SURV410 **Introduction to Probability Theory**

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: STAT410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0101	Mestiyage Gunatilleka TuTh 12:30pm - 1:45pm	Seats (Total: 35) SYM 0215
0201	Wiseley Wong MWF 10:00am - 10:50am	Seats (Total: 33) EGR 1104
0301	Lutian Zhao MWF 11:00am - 11:50am	Seats (Total: 36) PHY 2211
0501	Takumi Saegusa TuTh 11:00am - 12:15pm	Seats (Total: 33) MTH B0421
0601	Yu Gu TuTh 2:00pm - 3:15pm	Seats (Total: 33) PHY 2213

SURV420 **Theory and Methods of Statistics**

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with: STAT420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Jonathan Fernandes MWF 12:00pm - 12:50pm	Seats (Total: 35) MTH B0421
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 35) PHY 2214

SURV430 **Fundamentals of Questionnaire Design**

Restriction: Permission of BSOS-Joint Program in Survey Methodology department. Credit only granted for: SURV430 or SURV630.

Introduction to the scientific literature on the design, testing and evaluation of survey questionnaires, together with hands-on application of the methods discussed in class.

0101	Christopher Antoun Th 1:00pm - 3:00pm	Seats (Total: 25) LEF 1208

SURV440 **Sampling Theory**

(Perm req)

Prerequisite: STAT401 or STAT420. Credit only granted for: STAT440 or SURV440.

Simple random sampling, sampling for proportions, estimation of sample size, sampling with varying probabilities of selection, stratification, systematic selection, cluster sampling, double sampling, and sequential sampling.

It runs concurrently with the University of Michigan course.

0101	Trivellore Raghunathan **Meets January 10, 2024 - April 17, 2024** MW 8:30am - 10:00am	Seats (Total: 15) Location: TBA

SURV613 **Machine Learning for Social Science**

Recommended: Students are encouraged to work through one or more R tutorials prior or during the first weeks of the course. Some resources are listed on the syllabus. Credit only granted for: SURV613 or SURV699U. Formerly: SURV699U.

Introduction to supervised statistical learning techniques such as decision trees, random forests and boosting and discusses their potential application in the social sciences. These methods focus on predicting an outcome Y based on some learned function f(X) and therefore facilitate new research perspectives in comparison with traditional regression models, which primarily focus on causation. Predictive methods also provide a valuable extension to the empirical social scientists' toolkit as new data sources become more prominent. In addition to introducing supervised learning methods, the course will include practical sessions to exemplify how to tune and evaluate prediction models using the statistical programming language R.

0101	Brian Kim **Meets January 22, 2024 - May 9, 2024** M 10:30am - 1:00pm	Seats (Total: 30) LEF 1208

SURV616 **Statistical Modeling and Machine Learning II**

(Perm req)

Prerequisite: SURV615.

Build on material presented in Statistical Methods and Machine Learning I. Topics include: categorical data analysis, logistic regression, model selection for inference and prediction, classification using K-means and neural networks, survival analysis, principal components, and factor analysis.

It runs concurrently with the University of Michigan course.

0101	Zeynep Suzer Gurtekin **Meets January 12, 2024 - May 3, 2024** F 12:30pm - 3:30pm	Seats (Total: 20) LEF 1208
PCA1	Zeynep Suzer Gurtekin **Meets January 12, 2024 - May 3, 2024** F 12:30pm - 3:30pm *Must be in the Applied Political Analysis (MS) program. Golden ID students are not eligible for this section.*	Seats (Total: 15) LEF 1208

SURV622 **Fundamentals of Data Collection II**

(Perm req)

Prerequisite: Permission of Instructor required; or fundamentals of Data Collection I.

This is the second course in a two-semester sequence that provides a broad overview of the processes that generate data for use in social science research. Students will gain an understanding of different types of data and how they are created, as well as their relative strengths and weaknesses. A key distinction is drawn between data that are designed, primarily survey data, and those that are found, such as administrative records, remnants of online transactions, and social media content. The course combines lectures, supplemented with assigned readings, and practical exercises. The second semester builds on the discussion of survey mode during the first semester, considering the role played by interviewers in telephone and in-person surveys and their effects on the data collected. Students next are introduced to the methods for extracting and re purposing found data for social science research. Methods for the classification of text, with an emphasis on automated coding methods, are introduced and selected applications considered (e.g., coding of open-ended survey responses, classification of the sentiments expressed in social media posts). Issues in using survey data and administrative records to measure change over time (longitudinal comparisons) are explored. The term concludes with an examination of methods for evaluating the quality of both designed and found data.

It runs concurrently with the University of Michigan course.

0101	Frederick Conrad, Robyn Ferg	Seats (Total: 25)
	Meets January 15, 2024 - April 17, 2024	
	M 3:30pm - 6:30pm	LEF 1208

SURV625 **Applied Sampling**

(Perm req)

Prerequisite: Must have completed a course in statistics approved by department.

Practical aspects of sample design. Topics include: probability sampling (including simple random, systematic, stratified, clustered, multistage and two-phase sampling methods), sampling with probabilities proportional to size, area sampling, telephone sampling, ratio estimation, sampling error estimation, frame problems, nonresponse, and cost factors.

It runs concurrently with the University of Michigan course.

0101	Michael Elliott	Seats (Total: 15)
	Meets January 10, 2024 - May 3, 2024	
	W 10:15am - 11:45am Contact instructor or department for details.	LEF 2208

SURV630 **Questionnaire Design and Evaluation**

Restriction: Must be in the Survey and Data Science Doctoral or Master's Program, or the Applied Political Analytics Master's Program; or permission of the Joint Program in Survey Methodology. Credit only granted for: SURV430 and SURV630.

The stages of questionnaire design; developmental interviewing, question writing, question evaluation, pretesting, and questionnaire ordering and formatting. Reviews of the literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. Examination of the diverse challenges posed by self versus proxy reporting and special attention is paid to the relationship between mode of administration and questionnaire design.

0101	Ting Yan	Seats (Total: 16)
	Meets January 16, 2024 - April 17, 2024	
	Tu 1:00pm - 3:10pm	LEF 1208
	Contact instructor or department for details.	
	Must be in the Joint Program inSurvey Methodology (JPSM). All other graduate students must request permission. Contact department for permission.	
PCA1	Christopher Antoun	Seats (Total: 15)
	Meets January 26, 2024 - May 9, 2024	
	Th 1:00pm - 3:10pm	LEF 1208
	Contact instructor or department for details.	
	Must be in the Applied Political Analysis (MS) program. Golden ID students are not eligible for this section.	

SURV631 **Questionnaire Design**

(Perm req)

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course introduces students to the stages of questionnaire development. The course reviews the scientific literature on questionnaire construction, the experimental literature on question effects, and the psychological literature on information processing. It will also discuss the diverse challenges posed by self- versus proxy-reporting and special attention is paid to the relationship between mode of administration and questionnaire design. Students will also get hands-on experience in developing their own questionnaire.

PLS1	Gina Walejko	Seats (Total: 15)
	Meets January 12, 2024 - March 1, 2024	
	F 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Note that this course does not cover developing interview guidelines for semi- and unstructured interviews in qualitative studies. Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

PLS2	Gina Walejko	Seats (Total: 15)
	Meets January 11, 2024 - February 29, 2024	
	Th 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Note that this course does not cover developing interview guidelines for semi- and unstructured interviews in qualitative studies. Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV635 **Usability Testing for Survey Research**

(Perm req)

Recommended: Students should be familiar with the basics of questionnaire design. Experience with cognitive testing is a plus, but not a requirement. Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department.

Introduces the concepts of usability and usability testing and why they are needed for survey research. The course provides a theoretical model for understanding the respondent-survey interaction and then provides practical methods for incorporating iterative user-centered design and testing into the survey development process. The course provides techniques and examples for designing, planning, conducting and analyzing usability studies on web or mobile surveys

PLS1	Jennifer Romano, EMILY MCFARLANE GEISEN	Seats (Total: 15)
	Meets March 6, 2024 - April 3, 2024	
	W 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV636 **Sampling II**

(Perm req)

Prerequisite: SURV626 or equivalent. Recommended: Some experience with the R statistical computing software. Repeatable to 1 credit.

Different applications of the methods and techniques covered in the Sampling I course. This is also an applied statistics methods course concerned almost exclusively with the design of data collection rather than data analysis. The course will concentrate on sampling applications to human populations, since this poses a number of particular problems not found in sampling of other types of units. The principles of sample selection, though, can be applied to many other types of populations.

PLS1	Raphael Nishimura	Seats (Total: 15)
	Meets April 4, 2024 - April 25, 2024	
	Th 1:00pm - 2:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV662 **An Introduction to Small Area Estimation Methods**

Prerequisite: STAT400 and STAT401. Restriction: Permission of instructor.

There is a growing demand to produce reliable estimates of various socio-economic and health characteristics at both national and sub-national levels. However, data availability at the sub-national (small area) level from a survey is often limited by cost and thus analysts must make the best possible use of all available information. The course will begin with a history of small-area estimation and different uses of small-area statistics in both public and private sectors. This course will provide an introduction to the main concepts and issues in small estimation and describes various approaches for estimating different small area parameters. Topics include standard design-based methods, various traditional indirect methods and the state-of-the-art small-area estimation methods that use both Bayesian and empirical best prediction methods. Monte Carlo simulation results and data analysis using available statistical software will be presented.

PLS1	Partha Lahiri	Seats (Total: 20)
	Meets March 5, 2024 - April 5, 2024	
	Tu 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV675 **Modern Workflows in Data Science**

(Perm req)

Prerequisite: SURV665. Recommended: R or a good knowledge of R base and tidyverse. Restriction: Permission of BSOS-Joint Program in Survey Methodology department. Credit only granted for: SURV699Y or SURV675. Formerly: SURV699Y.

Large data, fast pace of production, and collaboration are hallmarks of the new data environment. In this context, researchers must have a good understanding of data workflows and they must ensure consistent and reproducible practices in order to collaborate and consistently produce insights. This course deals with some of these essential topics. We will discuss the main types of workflows in data and survey sciences and how tools such as GitHub can enhance collaboration and insure reproducibility. We will also discuss the use of reproducible documents such as Rmarkdown or Jupyter Notebooks before covering how to work with distributed data using Spark. We will finish the course by discussing the use of dashboards and how to develop such tools using R Shiny.

PLS1	Alexandru Cernat	Seats (Total: 15)
	Meets February 26, 2024 - April 22, 2024	
	M 3:00pm - 4:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV699 **Special Topics in Survey Methodology; Readings in Survey Methodology**

(Perm req)

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Partha Lahiri	Seats (Total: 10)
	Contact instructor or department for details.	
0201	Brian Kim	Seats (Total: 10)
	Contact instructor or department for details.	
0301	Stanley Presser	Seats (Total: 10)
	Contact instructor or department for details.	
0401	Frauke Kreuter	Seats (Total: 10)
	Contact instructor or department for details.	

SURV699X **Special Topics in Survey Methodology; Data Linkage**

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Partha Lahiri	Seats (Total: 5)
	F 9:00am - 12:30pm	LEF 1218

SURV701 **Analysis of Complex Sample Data**

Prerequisite: SURV625.

Analysis of data from complex sample designs covers: the development and handling of selection and other compensatory weights; methods for handling missing data; the effect of stratification and clustering on estimation and inference; alternative variance estimation procedures; methods for incorporating weights, stratification and clustering, and imputed values in estimation and inference procedures for complex sample survey data; and generalized design effects and variance functions. Computer software that takes account of complex sample design in estimation.

It runs concurrently with the University of Michigan course.

0101	Taylor Lewis	Seats (Total: 15)
	Meets January 11, 2024 - May 9, 2024	
	Th 1:00pm - 3:45pm	LEF 1218

SURV721 **Total Survey Error and Data Quality II**

(Perm req)

Prerequisite: SURV720. Restriction: Permission of instructor. Credit only granted for: (SURV720 and SURV721) or SURV723. Formerly: SURV723.

Second part of a review of total survey error structure of sample survey data. Reviewing current research findings on the magnitudes of different error sources. Students will continue work on an independent research project which provides empirical investigation of one or more error source. An analysis paper presenting findings of the project will be submitted at the end of the course.

It runs concurrently with the University of Michigan course.

0101	Frederick Conrad, Frauke Kreuter	Seats (Total: 20)
	Meets January 11, 2024 - April 17, 2024	
	Th 9:00am - 11:30am	LEF 1208

SURV742 **Inference from Complex Surveys**

(Perm req)

Prerequisite: SURV440.

Inference from complex sample survey data covering the theoretical and empirical properties of various variance estimation strategies (e.g., Taylor series approximation, replicated methods, and bootstrap methods for complex sample designs). Incorporation of those methods into inference for complex sample survey data. Variance estimation procedures applied to descriptive estimators and to analysis of categorical data. Generalized variances and design effects presented. Methods of model-based inference for complex sample surveys examined, and results contrasted to the design-based type of inference used as the standard in the course. Real survey data illustrating the methods discussed. Students will learn the use of computer software that takes account of the sample design in estimation.

It runs concurrently with the University of Michigan course.

0101	Robert Fay	Seats (Total: 20)
	Meets January 16, 2024 - April 16, 2024	
	Tu 1:00pm - 2:30pm Contact instructor or department for details.	LEF 1218

SURV745 **Practical Tools for Study Design and Inference**

Prerequisite: SURV615, SURV616, and SURV625; or permission of instructor.

A statistical methods class appropriate for second year Master's students and PhD students. The course will be a combination of hands-on applications and general review of the theory behinddifferent approaches to sampling and weighting. Topics covered include sample size calculations using estimation targets based on relative standard error, margin of error, and power requirements. Use of mathematical programming to determine sample sizes needed to achieve estimation goals for a series of subgroups and analysis variables. Resources for designing area probability samples. Methods of sample allocation for multistage samples. Steps in weighting, including computation of base weights, non response adjustments, and uses of auxiliary data. Non response adjustment alternatives, including weighting cell adjustments, formation of cells using regression trees, and propensity score adjustments. Weighting via post stratification, raking, general regression estimation, and other types of calibration.

0101	Sunghee Lee	Seats (Total: 20)
	Meets January 16, 2024 - May 9, 2024	
	Tu 9:30am - 12:00pm	LEF 1208

SURV750 **Step by Step Survey Weighting**

Prerequisite: SURV440, or course in sampling theory; and SURV626, or course in applied sampling. Recommended: Some experience with variance estimation (e.g., SURV742), statistical analysis using survey data, and the R statistical computing software.

Learn to calculate analysis weights for various survey designs in a real-world setting. We will cover topics on calculating base weights for single- and multistage designs, adjusting weights for unknown study eligibility and nonresponse using a few techniques, and aligning survey estimates with known population values through weight calibration. We will use specialized software for the procedures mentioned. This course will emphasize R but some examples in SAS and Stata are also discussed.

PLS1	Anna-Carolina Haensch	Seats (Total: 15)
	Meets February 16, 2024 - March 8, 2024	
	F 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Note that this course does not cover developing interview guidelines for semi- and unstructured interviews in qualitative studies. Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV751 **Introduction to Big Data and Machine Learning**

(Perm req)

Prerequisite: Familiarity with the statistical software R. Restriction: Permission of BSOS-Joint Program in Survey Methodology department. Additional information: Familiarity with model building and model selection as well as the R program is not required but could also be helpful. Students without prior knowledge in R should plan on using free online resources to make themselves familiar with the basics of this statistical programming language.

This is an introduction to the uses and methods of working with Big data. Students explore how Big Data concepts, processes and methods can be used within the context of Survey Research.

PLS1	Trent Buskirk, Frauke Kreuter	Seats (Total: 15)
	Meets January 22, 2024 - February 12, 2024	
	M 1:00pm - 2:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV752 **Introduction to Data Visualization**

(Perm req)

Prerequisite: Basic statistics understanding and bivariate linear regression. Recommended: Experience in the use of statistical software package R. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Data visualization is one of the most powerful tools to explore, understand and communicate patterns in quantitative information. At the same time, good data visualization is a surprisingly difficult task and demands three quite different skills: substantive knowledge, statistical skill, and artistic sense. The course is intended to introduce participants to a) key principles of analytic design and useful visualization techniques for the exploration and presentation of univariate and multivariate data. This course is highly applied in nature and emphasizes the practical aspects of data visualization in the social sciences. Students will learn how to evaluate data visualizations based on principles of analytic design, how to construct compelling visualizations using the free statistics software R, and how to explore and present their data with visual methods.

PLS1	Richard Tranmueller	Seats (Total: 15)
	Meets January 17, 2024 - February 7, 2024	
	W 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Golden ID students are not eligible for this section. Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV772 **Survey Design Seminar**

Credit only granted for: (SURV770 and SURV771) or SURV772. Formerly: SURV770 and SURV771.

Students present solutions to design issues presented to the seminar. Readings are selected from literatures not treated in other classes and practical consulting problems are addressed.

It runs concurrently with the University of Michigan course.

0101	Katharine Abraham **Meets January 24, 2024 - May 9, 2024** W 3:00pm - 5:45pm	Seats (Total: 10) LEF 1208

SURV829 **Doctoral Research Seminar in Survey Methodology**

(Perm req)

An advanced research seminar for students preparing to do research or take doctoral comprehensive examinations.

It runs concurrently with the University of Michigan course.

0101	Stanley Presser, Sunghee Lee **Meets January 17, 2024 - April 17, 2024** W 2:00pm - 4:30pm	Seats (Total: 10) Location: TBA

SURV898 **Pre-Candidacy Research**
Contact department for information to register for this course.

SURV899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

TDPS Theatre, Dance and Performance Studies Spring 2024

TDPS201 **Introduction to Technical Production**

(Perm req)

Restriction: Must be in a major within the ARHU-Dance department; or must be in a major within the ARHU-Theatre department. Credit only granted for: DANC210 and THET114 or TDPS201. Formerly: DANC210 and THET114.

Students are provided with an overview of topics related to the technical production of theatre and dance including: scenic, prop and costume construction, lighting, sound and video execution and management structures.

Students must pay a $25 lab fee.

5501	Michael Driggers MWF 4:00pm - 4:50pm	Seats (Total: 25) PAC 1809

TDPS408D **Seminar in Theory and Practice of Critical Difference; Contemporary History of Black Performance: Theory & Practice**

This interdisciplinary seminar examines expressive culture as performed in works of dance, theatre, music, and digital media.

0101	Ama Law	Seats (Total: 15)
	TuTh 9:30am - 10:45am	PAC 1815

TDPS440 **Arts Leadership Seminar**

Cross-listed with: ARHU440. Credit only granted for: TDPS440 or ARHU440.

An advanced seminar in arts leadership exposing students to the foundations of arts leadership in not-for-profit organizations as it intersects with current trends in technology, demographics, government policy, and the economy. In case studies based on examples drawn from local arts organizations, students will learn about audience engagement as well as institutional development terminology and best practices.

0101	Kate Keeney	Seats (Total: 15)
	MW 12:30pm - 1:45pm	PAC 1815

TDPS458K **Special Topics in Advanced Performing Arts; Stock Motion Performances**

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Cross-listed with THET669E and DANC689K. Credit only granted for TDPS458K, THET669E, or DANCE689K. Student must pay a $25 lab fee. Students will build a series of performance studies using Unity software and stock animation available on public motion libraries. Students will string together animations in various patterns and interactive systems, and design performance environments for them. Students will gain an understanding of motion that is assumed "default," "normal," and "useful," and use their work to interrogate and challenge such assumptions and their social and political connotations. Then, students will try to recreate their digital action sequences in physical space, and re-translate them back into the virtual, building a new and improvednon-stock motionlibrary."

5501	Kate Ladenheim	Seats (Total: 10)
	MW 12:00pm - 1:50pm	PAC 2727

TDPS458P **Special Topics in Advanced Performing Arts; Motion Capture for Mixed Reality Performance**

(Perm req)

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Prerequisites: A minimum grade of C- in IMDM290. Restriction: Permission of department. Cross-listed with DANC689Q and THET669Q. Credit only granted for TDPS458P, DANCE689Q, or THET669Q. This class will introduce students to creative and technical application for motion capture. Using analog, inertial, optical, and AI systems, students will engage in collaborative projects that span digital and physical spaces. Students will also engage with the history of mocap development, as well as the aesthetics and ethics surrounding digital motion.

0101	Kate Ladenheim TuTh 10:00am - 11:50am	Seats (Total: 8) IRB 0110

TDPS469 **Advanced Practicum in Stage Management**

(Perm req)

A graded course in stage management for theatre and/or dance productions. A hands-on laboratory experience.

0101	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 10)

TDPS479 **Production Practicum**

(Perm req)

A graded course in a specified practical aspect of mounting a theatre or dance production. It is a hands-on, purely laboratory experience.

Prerequisite: TDPS201. Formerly THET479. A specified practical aspect of mounting a theatre or dance production with hands-on, laboratory experience.

1001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1002	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1003	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1004	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1006	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1007	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)

2002	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2003	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2004	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2006	Andrew Cissna Contact instructor or department for details.	Seats (Total: 25)
3001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 60)

THET Theatre Spring 2024

THET110 **Introduction to the Theatre**

In the age of pop music and blockbuster films, of memes and viral videos, we often forget that theatre was one of the original forms of popular entertainment. We will focus on theatre practitioners including actors, directors, designers and backstage personnel to understand how theatre is produced. We will also consider popular entertainment in Europe and America, with a particular focus on musical theatre and Broadway to explore how theatre communicates, resonates, and remains relevant to all audiences.

0101	Kristopher Pourzal MWF 11:00am - 11:50am	Seats (Total: 30) ONLINE
0102	Caitlin Woods MWF 12:00pm - 12:50pm	Seats (Total: 30) EGR 2154
0103	Yasmin Eubanks MWF 12:00pm - 12:50pm	Seats (Total: 30) ONLINE
0104	James Sivert MWF 1:00pm - 1:50pm	Seats (Total: 30) KNI 1103
0106	Margaret Lapinski MWF 10:00am - 10:50am	Seats (Total: 30) KNI 1103

0107	Patrick Crowley MWF 11:00am - 11:50am	Seats (Total: 30) SQH 1101	
0108	Matre Grant MWF 10:00am - 10:50am	Seats (Total: 30) ONLINE	

THET116 **Fundamentals of Theatrical Design**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Examines theatre as an environmental art that is realized through collaboration between set, costume, and lighting designers.

Students must pay a $25 lab fee.

5501	Scott Monnin, Luis Garcia, Cody Von Ruden, Jerran Kowalski TuTh 1:30pm - 3:20pm Class time/details on ELMs	Seats (Total: 20) PAC 2733 ONLINE	 Lab Lab

THET120 **Introduction to Acting**

Restriction: Must not be in Theatre program.

Through scene study, exercises, and improvisation, an appreciation is developed for the working habits of actors, which will aid them in rehearsal as well as performance.

Students must pay a $25 lab fee.

5501	Scot Reese TuTh 10:00am - 11:50am Class time/details on ELMs	Seats (Total: 12) PAC 2740 ONLINE	 Lab

THET222 **Foundations of Acting and Performance**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Students will become familiar with the tools and process of acting through the discipline of acting exercises, analyzing character and performing. Students will research various theatre artists that have contributed to the acting process. Through monologue and scene work students will learn listening skills, communicative, collaborative and embodiment skills and will learn how to use the self in the imaginative process and research. And, most importantly, students will learn creative process through practice.

Students must pay a $25 lab fee. THET222 is for new Theatre majors only. Non-Theatre majors must attend the first day of class for permission to add

5501	Jennifer Newsham	Seats (Total: 14)	
	TuTh 10:00am - 11:50am	PAC 3730	Lab
	Class time/details on ELMs	ONLINE	Lab

THET223 **Text and Context in Western Theatre**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introduction to the analysis and critique of the play script. Students will have the opportunity to read, analyze, and interpret western dramatic literature from a range of periods and styles. Texts are analyzed from a variety of theatrical analytical perspectives, with an eye towards choices theatre artists must make in the creation of a theatrical production.

0101	Melissa Sturges	Seats (Total: 20)
	MW 9:30am - 10:45am	PAC 1809

THET251 **Broadway Mashup: Remixing America Through Musical Theater**

Interrogate musical theater's political history, investigating how this uniquely American genre uses narrative, song, and dance to weave critical differences across race, ethnicity, immigration status, religion, gender, sexuality, and ability into our national fabric.

0101	Caitlin Marshall	Seats (Total: 20)
	MW 11:00am - 12:15pm	PAC 1809
0102	Amber Daniels	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	PAC 1809

THET269T **Special Topics in Study Abroad II; 20th Century and Contemporary Spanish Theater**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET274 **Introduction to Stage Management**

Prerequisite: THET114 or TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Familiarization with the techniques and skills required of a Stage Manager in a theatrical production, including organization, production meetings, rehearsals, tech and running a show. The outcome at the conclusion of the course is the ability to function as an Assistant Stage Manager in a supervised situation.

0101	Jenn Schwartz TuTh 1:30pm - 2:45pm	Seats (Total: 10) PAC 1924

THET285 **The Art of Communication and Presentation**

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, or THET285.

An introduction to the fundamental practice and theory of public speaking and oral communication using theatrical techniques of both performance and the craft of storytelling.

0101	Ronya Anderson MW 9:30am - 11:20am	Seats (Total: 25) PAC 3736
0102	Robert Smith MW 12:00pm - 1:50pm	Seats (Total: 25) PAC 3732
0103	Robert Smith MW 3:00pm - 4:50pm	Seats (Total: 25) PAC 3732

THET287 **Subversive Cultures and Performance**

Credit only granted for: THET289I or THET287. Formerly: THET289I.

Every society has rebels - those who refuse to conform to the mainstream's rigid rules, aesthetics, and beliefs. From unruly skateboarders, punk rockers, bohemian poets, and radical theater performers, to national revolutionary movements and brick-throwing anarchists - such groups form niches that are defined by their exclusion from society. We will look at how their beliefs and actions fit into a particular historical context, and how their actions drive social change.

0101	Van Tran Nguyen MW 12:00pm - 1:15pm	Seats (Total: 30) HBK 1112
0102	Van Tran Nguyen MW 1:30pm - 2:45pm	Seats (Total: 30) HBK 1112

THET294 **Black Theatre and Performance II**

Restriction: Sophomore standing or higher.

Thematic and historical survey of African-American drama from the 1960s to the present. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

0101	Fatima Quander TuTh 9:30am - 10:45am	Seats (Total: 20) PAC 1809

THET299L **Independent Study; Analyzing Performances**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET299Z **Independent Study; Issues of Realism**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET310 **Voice for the Actor I**

(Perm req)

Prerequisite: THET116, THET222, THET223, and TDPS201; and must Interview; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Freeing the natural voice. In-depth experience of connection of actor's voice to thought, impulse and emotion. Tools for releasing tension, increasing resonance and range, and refining articulation will be explored.

Students must pay a $25 lab fee.

5501	Lisa Nathans	Seats (Total: 14)	
	TuTh 10:00am - 11:50am	PAC 3732	Lab
	Class time/details on ELMs	ONLINE	Lab

THET328L **Special Topics in Intermediate Theatre and Performance; Acting for Digital and Live Performance**

Topics covered include: Intercultural Theatre, Performance Art, Puppetry, Solo Performance, or Theatrical Design.

Students must pay a $25 lab fee.

5501	Fatima Quander	Seats (Total: 12)	
	MW 12:00pm - 1:50pm	PAC 3736	
	Class time/details on ELMs	ONLINE	Lab

THET328N **Special Topics in Intermediate Theatre and Performance; Movement Techniques for Actors**

Topics covered include: Intercultural Theatre, Performance Art, Puppetry, Solo Performance, or Theatrical Design.

Students must pay a $25 lab fee.

5501	Adriane Fang	Seats (Total: 12)	
	TuTh 2:00pm - 3:50pm	PAC 3736	Lab
	Class time/details on ELMs	ONLINE	Lab

THET363 **The Business of the Business**

(Perm req)

Prerequisite: THET116, THET222, THET223, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399B or THET499E or THET363. Formerly: THET399B, THET499E.

An in depth study of the business of working in the theatre. Explores early career opportunities and entry-level positions in the entertainment industry. Analyzes publicity, management, union, casting, and agency practices; how they apply to you and your career in the non-profit and commercial theatre.

0101	Fatima Quander	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	PAC 1809	

THET369X **Special Topics in Study Abroad III; Fourth-Year French II**

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET377 **Lighting Design for Performance**

(Perm req)

Prerequisite: THET222, THET223, THET116, and TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

A study of the theories of electrification, instruments, design, color, and control for the stage. Practical work on productions.

Students must pay a $25 lab fee.

5501	Michael Riggs	Seats (Total: 10)	
	TuTh 9:00am - 10:50am	PAC 3731	Lab
	Class time/details on ELMs	ONLINE	Lab

THET380 **Sound Design**

Prerequisite: THET116. And THET114; or TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Theatre Sound Design is a first course in designing sound for stage productions.

Students must pay a $25 lab fee.

5501	Samuel Crawford	Seats (Total: 10)	
	MW 2:00pm - 3:50pm	PAC 2727	Lab
	Class time/details on ELMs	ONLINE	Lab

THET383 **Costume Design I**

(Perm req)

Prerequisite: TDPS201 or THET114; and (THET116, THET222, and THET223). Or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Basic principles of theatre costume design and introduction to rendering skills. Emphasis on development of design conception, unity, character statement, basic clothing design and period style adaptation.

Students must pay a $25 lab fee.

5501	Rebecca Janney	Seats (Total: 8)	
	Th 1:30pm - 4:20pm	PAC 2755	Lab
	Class time/details on ELMs	ONLINE	Lab

THET385 **Media Design**

(Perm req)

Prerequisite: THET222, THET223, THET116, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399D or THET385. Formerly: THET399D.

Focuses on learning the grammar and conceptual thinking behind multimedia design for live performance. Students will learn how our new multimedia tools can enhance the sense of liveness as well as explore the different ways in which technology can be implemented into preproduction thinking, rehearsal experimenting, and ultimately, effective use in performance.

Students must pay a $25 lab fee

5501	Kate Ladenheim	Seats (Total: 10)	
	MW 10:00am - 11:50am	PAC 2727	
	Contact instructor or department for details.		

THET386 **Experiential Learning**

(Perm req)

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

0401	Scot Reese	Seats (Total: 3)	
	Contact instructor or department for details.		

0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 1)
2002	KenYatta Rogers Contact instructor or department for details.	Seats (Total: 3)
2003	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 5)

THET391 **Theatre History II**

(Perm req)

Prerequisite: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

The history of Western theatre from the mid seventeenth century to the early twentieth century, with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Includes explorations of interrelationships between Western theatre and the theatre of other cultures.

0101	Caitlin Marshall MW 2:00pm - 3:15pm	Seats (Total: 25) PAC 1809

THET399 **Independent Study**

(Perm req)

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

1401	Caitlin Marshall Contact instructor or department for details.	Seats (Total: 3)

THET399F **Independent Study; Modern British Theater**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399H **Independent Study; London Stage**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399L **Independent Study; Contemporary British Drama**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399X **Independent Study; The London Stage**

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET408T **Seminar: Theory and Performance Studies; Theatre in the 1960s**

Studies in theatre theory and performance studies from classical antiquity to the present.

0101	James Harding	Seats (Total: 15)	
	Tu 4:00pm - 6:30pm	PAC 1815	

THET425 **Actor's Process II**

(Perm req)

Prerequisite: THET325; and must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

A deeper exploration of the work begun in THET325. A continuation of creating a personal process through which the actor can confidently approach any genre of play. Special focus on status and subtext and the world of the playwright.

5501	KenYatta Rogers	Seats (Total: 12)	
	TuTh 10:00am - 11:50am	PAC 3736	Lab

THET428B **Special Topics in Advanced Theatre and Performance; Project Based Learning**

(Perm req)

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

5501	Scot Reese, Alvin Mayes	Seats (Total: 14)	
	MW 3:30pm - 5:00pm	PAC 1912	Lab

THET429 **Actor's Studio**

(Perm req)

Participation in dramatic roles executed under faculty supervision in the department's productions. Eligible students must make commitments and plan performances with course instructor during pre-registration.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 25)
0501	Fatima Quander Contact instructor or department for details.	Seats (Total: 25)
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 25)
0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 25)
1501	Lisa Nathans Contact instructor or department for details.	Seats (Total: 20)
1601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 12)
2002	KenYatta Rogers Contact instructor or department for details.	Seats (Total: 20)
2007	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

THET440 **Advanced Playwriting**

Prerequisite: THET340; or permission of instructor. And permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET440 or THET499P. Formerly: THET499P.

Ensemble-based writer's workshop. It is the second part of a two-course sequence and is designed for students who already have a foundation in the basics of playwriting or who are other wise well-versed in the art of theatre and dramatic structure. Through exploratory writing sequences, the reading of full-length plays, and in-class readings of work-in-progress, students will continue to deepen their craft and develop the script for a new full-length play.

5501	Jennifer Newsham	Seats (Total: 12)	
	MW 10:00am - 11:50am	PAC 1815	Lab
	Class time/details on ELMs	ONLINE	Lab

THET452 **Musical Theatre Workshop II**

(Perm req)

Prerequisite: Must audition. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Development of the ability to move, act and express through the media of lyric and music from the integrated musicals of the 1960s through the development of concert and rock/pop musicals.

5501	Lisa Nathans	Seats (Total: 14)	
	Tu 1:30pm - 4:20pm	PAC 2740	Lab
	Class time/details on ELMs	ONLINE	Lab

THET471 **Design Studio in Scenery**

Prerequisite: THET371; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET639. Credit only granted for: THET471 or THET639.

Advanced study of scenic design for the theatre. Particular design projects will vary.

Students must pay a $25 lab fee.

5501	Misha Kachman	Seats (Total: 3)	
	MW 9:00am - 11:50am	PAC 2733	Lab
	Class time/details on ELMs	ONLINE	Lab

THET477 **Design Studio in Lighting**

(Perm req)

Prerequisite: THET377; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET659. Credit only granted for: THET477 or THET659.

Designed for students who have successfully completed THET377 and wish to further develop their lighting design skills. Emphasis is on theoretical design of productions and realized light lab projects. Particular design projects will vary.

For first year lighting design students and other MFA students. Students must pay a $25 lab fee.

5501	Andrew Cissna, Amith Chandrashaker	Seats (Total: 2)	
	M 3:00pm - 5:50pm	PAC 3731	Lab
	Class time/details on ELMs	ONLINE	Lab

THET480 **Advanced Sound Design**

(Perm req)

Prerequisite: THET380 and permission of the School of Theatre, Dance, and Performance Studies.

Students will dive deeper into the technical elements of sound design, developing a working understanding of both software editing tools as well as the primary components of a live sound system.

Students must pay a $25 lab fee

5501	Samuel Crawford	Seats (Total: 10)	
	TuTh 1:30pm - 3:20pm	PAC 2727	
	Class time/details on ELMs	ONLINE	Lab

THET489L **Special Topics in Theatre History from 1800 to Present; LGBTQ Theatre**

Topics in the history of world theatre and performance from 1800 to present.

0101	Carla Della Gatta	Seats (Total: 15)
	MW 3:30pm - 4:45pm	PAC 1815

THET489T **Special Topics in Theatre History from 1800 to Present; Latinx Theatre and Performance**

Topics in the history of world theatre and performance from 1800 to present.

0101	Carla Della Gatta	Seats (Total: 20)
	MW 2:00pm - 3:15pm	PAC 1815

THET497 **Non-Traditional Theatre**

Seminar exploring American and European experimental performance since 1960. Topics include experimental theatre, performance art, pornography and performance, gender and performance, and popular culture and performance. Topics are treated historically and theoretically. Student-produced performance projects are an important component of the seminar.

Contact department for information to register for this course.

THET499 **Independent Study**

(Perm req)

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499G **Independent Study; Realism and Theater Naturalism**

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Q **Independent Study; Theatrical Forms and Genres**

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499R **Independent Study; Issues of Realism**

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Y **Independent Study; The London Stage**

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499Z **Independent Study; The London Stage**

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET608T **Seminar: Theory and Performance Studies; Introduction to Archives and Digital Curation**

(Perm req)

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

IM01	Eric Hung	Seats (Total: 30)
	Th 10:00am - 12:45pm	ONLINE

THET608U **Seminar: Theory and Performance Studies; Theatre in the 1960's**

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

0101	James Harding	Seats (Total: 15)	
	Tu 4:00pm - 6:30pm	PAC 1815	

THET632 **Playwriting**

(Perm req)

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Lessons in playwriting, including character, plot, dramatic structure, dialogue, exposition, setting, and creating theatrical images.

Students must pay a $25 lab fee.

5501	Jennifer Newsham	Seats (Total: 3)	
	MW 10:00am - 11:50am	PAC 1815	Lab
	Class time/details on ELMs	ONLINE	Lab

THET639 **Graduate Design Studio - Scenery**

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay a $25 lab fee.

5501	Misha Kachman	Seats (Total: 10)	
	MW 9:00am - 11:50am	PAC 2733	Lab
	Class time/details on ELMs	ONLINE	Lab

THET649 **Graduate Design Studio - Costume**

A series of carefully and individually structured assignments and projects that allows students to progress in their design training.

For first year costume design students and other MFA students. Students must pay a $25 lab fee.

5501	Ivania Stack	Seats (Total: 10)	
	Tu 1:30pm - 4:20pm	PAC 2755	Lab
	Students must pay a $25 lab fee.		

THET659 **Graduate Design Studio - Lighting**

We will focus on connecting subject matter to light. Questions of meaning, structure, process, and intent will be investigated. The class will also explore the qualities and functions of light, what light can and cannot communicate. Students will develop a visual and conceptual vocabulary. Emphasis will be placed on process, both intellectual and practical.

For first year lighting design students and other MFA students. Students must pay a $25 lab fee.

5501	Amith Chandrashaker	Seats (Total: 10)	
	M 3:00pm - 5:50pm	PAC 3731	Lab
	Class time/details on ELMs	ONLINE	Lab

THET669 **Independent Study**

(Perm req)

Contact department for information to register for this course.

THET669E **Independent Study; Stock Motion Performances**

Cross-listed with THET669E and DANC689K. Credit only granted for TDPS458K, THET669E, or DANCE689K. Student must pay a $25 lab fee. Students will build a series of performance studies using Unity software and stock animation available on public motion libraries. Students will string together animations in various patterns and interactive systems, and design performance environments for them. Students will gain an understanding of motion that is assumed "default," "normal," and "useful," and use their work to interrogate and challenge such assumptions and their social and political connotations. Then, students will try to recreate their digital action sequences in physical space, and re-translate them back into the virtual, building a new and improvednon-stock motionlibrary."

5501	Kate Ladenheim	Seats (Total: 10)	
	MW 12:00pm - 1:50pm	PAC 2727	

THET669L **Independent Study; Graduate Design Studio-Lighting III**

(Perm req)

5501	Amith Chandrashaker	Seats (Total: 8)	
	MW 10:00am - 11:50am	PAC 3731	

THET672 **Scenography**

An advanced design studio which takes a comprehensive approach to design spanning across lines between specific disciplines and explores Scenography as an art form. Students are expected to concentrate in their primary design area while simultaneously conceiving, coordinating and developing other scenographic elements.

Students must pay a $25 course fee.

5501	Misha Kachman	Seats (Total: 10)	
	W 2:00pm - 4:50pm	PAC 2755	Lab
	Class time/details on ELMs	ONLINE	Lab

THET678 **Collaborative Design & Production for Performance**

(Perm req)

A 3rd year capstone course co-taught by design faculty and invited professional artists and designers. 2nd year students can take the class by special permission. This is an advanced studio class in design collaboration. Students will design two theoretical projects under the supervision of two design faculty members and guest directors.

Students must pay a $25 lab fee

5501	Misha Kachman, Amith Chandrashaker	Seats (Total: 15)	
	M 12:00pm - 2:50pm Contact instructor or department for details.	PAC 2733	

THET679 **Graduate Design Studio - Multimedia Design**

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pa a $25 lab fee.

5501	Alexandra Colburn	Seats (Total: 8)	
	M 4:00pm - 7:00pm Class time/details on ELMs	PAC 3730 ONLINE	Lab Lab

THET698L **Seminar: Theatre History; LGBTQ Theatre**

Studies in theatre history from classical antiquity to the present.

0101	Carla Della Gatta	Seats (Total: 15)
	MW 3:30pm - 4:45pm	PAC 1815

THET698T **Seminar: Theatre History; Latinx Theatre and Performance**

Studies in theatre history from classical antiquity to the present.

0101	Carla Della Gatta	Seats (Total: 20)
	MW 2:00pm - 3:15pm	PAC 1815

THET788 **Design for Live Performance Tutorial**

(Perm req)

Collaboration with a faculty member on joint creative and artistic projects. A tutorial that assists students in developing a professional design portfolio, monitors practical production efforts and addresses practical production skills that may not be offered in traditional design studios.

Contact department for information to register for this course.

THET789 **Theatre Design Process and Production**

(Perm req)

The class encompasses various areas of pedagogical interactions between MFAD students and their mentors which include, but are not limited to: design advising and supervision for mainstage design assignments and professional projects outside the School, production process supervision (shop walkthroughs, fittings, technical rehearsals, note sessions), mandatory design critiques, assisting faculty members on outside professional projects etc.

Contact department for information to register for this course.

THET799 **MFA Theatre Design Thesis**

(Perm req)

Projects are assigned and approved as Thesis by the student's primary faculty mentor. Projects fall into three categories: 1) realized mainstage designs at the Clarice Smith Performing Arts Center; 2) realized designs at professional venues outside the University; 3) theoretical designs.

Contact department for information to register for this course.

THET888 **Doctoral Practicum in Theatre**

(Perm req)

Critical analysis of a phase of a professional field of theatre. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

THET889 **Doctoral Tutorial in Theatre**

(Perm req)

Individual research in theatre.

Contact department for information to register for this course.

THET898 **Pre-Candidacy Research**

(Perm req)

Contact department for information to register for this course.

THET899 **Doctoral Dissertation Research**

(Perm req)

Contact department for information to register for this course.

TLPL Teaching and Learning, Policy and Leadership Spring 2024

TLPL101 **Inquiry Approach to Teaching STEM (Step 1)**

Additional information: Students must allow for a three-hour window between 7:45 AM and 3:15 PM in their schedule for field experiences in a local school 3-4 times during the semester. A background check is required and will be facilitated by the Terrapin Teacher program coordinator.

Explore STEM teaching and learning and classroom complexity, and develop teaching skills through discussion-based, collaborative class sessions, and experiences in local schools. To explore/understand the fundamentals of inquiry teaching, students will observe, plan and teach student-centered lessons.

0101	Milen Matthews M 3:00pm - 4:20pm	Seats (Total: 24) PHY 1120
0201	Steven Karig Th 12:30pm - 1:50pm	Seats (Total: 24) PHY 1120
0301	Jennifer Mesiner Th 3:30pm - 4:50pm	Seats (Total: 24) PHY 1120

TLPL102 **Inquiry Teaching of STEM in Middle School**

Prerequisite: Must have completed TLPL101. Additional information: Attendance at each class session will be vital to student success in the course. To complete the observations and lessons, students must allow a three hour block of time during the local middle school operational hours from 7:45 am to 3:15 pm. A background check is required.

Second course in the Terrapin Teachers teacher preparation sequence. Students gain field experience and continue exploring teaching as a career by conducting teacher observations, and planning and implementing lessons in local, high-need middle school classrooms. Students work closely with UM master teachers to build upon the inquiry-based teaching practices developed in TLPL 101. Students work with mathematics and science curricula while attending to state and district standards, in order to develop and enact lessons that are responsive to students' reasoning in math and science.

0101	Sarah Henson-Darko W 3:00pm - 4:50pm	Seats (Total: 24) PHY 1120
0201	Sarah Henson-Darko Th 3:00pm - 4:50pm	Seats (Total: 24) PHY 1108

TLPL250 **Historical and Philosophical Perspectives on Education**

Credit only granted for: EDPS210 or TLPL250. Formerly: EDPS210.

An examination of illustrative historical and philosophical examples of the interplay of ideas and events in the shaping of educational aims and practices from ancient cultures to modern technological societies.

0101	Stephanie Chou MW 10:00am - 11:15am	Seats (Total: 30) TWS 1106

0201	Lisa Eaker TuTh 9:30am - 10:45am	Seats (Total: 30) EDU 2119	
0301	Chelsea Stolt TuTh 12:30pm - 1:45pm	Seats (Total: 30) EDU 3315	
0401	Lisa Lopez-Escobar MW 11:00am - 12:15pm	Seats (Total: 30) TWS 0205	

TLPL251 **Community, Learners, and Classroom Climate**

Additional information: This course has a field component in a local elementary school.

Focuses on classroom community building as an ethic of caring for students and examines the connection between classroom climate and learning. Topics include students' funds of knowledge, social-emotional competency, and the practices that maintain a safe and inclusive classroom climate. Wellness strategies to support teacher resilience are also addressed.

0101	Karen Rehder M 12:00pm - 1:50pm Tu 8:00am - 12:00pm	Seats (Total: 12) EDU 2121 Location: TBA	 Lab
0102	Karen Rehder M 12:00pm - 1:50pm W 8:00am - 12:00pm	Seats (Total: 12) EDU 2121 Location: TBA	 Lab
0103	Karen Rehder M 12:00pm - 1:50pm Th 8:00am - 12:00pm	Seats (Total: 12) EDU 2121 Location: TBA	 Lab

TLPL252 **Students, Schooling, and Communities**

(Perm req)

Corequisite: TLPL251. Credit only granted for: EDCI297 or TLPL252. Formerly: EDCI297.

Facilitates pre-service teachers' initial look at their personal backgrounds and the ways in which they view the world. Exploration of schools, students and their connections to communities. Draws on preservice teachers' concurrent field experiences.

0101	Vivian Zohery MW 10:00am - 11:15am	Seats (Total: 25) LEF 0135

TLPL287 **Inquiry Into Issues in US Public Schooling: Policies, Practice and Promise**

Credit only granted for: TLPL288T or TLPL287. Formerly: TLPL288T.

Students will inquire into enduring issues faced by US public education, focusing on the forces and stakeholders that have shaped current policy and practice. In addition, students will work to consider the real daily consequences of policy on the lives of students and teachers. Through crafting and researching a question of interest, employing a project based learning approach, students will take a deep dive into the most vexing issues faced by public education in the United States.

0101	Sarah Moore	Seats (Total: 60)
	MW 11:00am - 12:15pm	SQH 1119

TLPL288E **Special Problems in Education; Developmental Heuristics**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

0101	Sharon Vanwright	Seats (Total: 150)
	Contact instructor or department for details.	

TLPL288K **Reinventing Childhood: Unschooling and Other School Alternatives**

Credit only granted for: TLPL288K or TLPL210. Formerly: TLPL288K.

Surveys innovative approaches to child education, including unschooling, homeschooling, blended instruction, place-based learning, Big Picture Learning, democratic schools, microschools, self-directed learning centers, and other alternatives to traditional schools.

0101	Kellie Rolstad	Seats (Total: 60)
	TuTh 12:30pm - 1:45pm	MCB 1207

TLPL288P **Special Problems in Education; Experiential Learning of Geoscience:An Agency and school Visit Experience**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

0101	Candice Duncan	Seats (Total: 15)
	F 10:00am - 12:00pm	ONLINE

TLPL298 **Special Problems in Education**

(Perm req)

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL300 **Digital Learning Tools and Communities**

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Elementary Education; Secondary Educ: Social Studies; Secondary Educ: Art; Secondary Educ: Mathematics; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Foreign Languages). Credit only granted for: EDCI385 or TLPL300. Formerly: EDCI385.

An exploration of the digital tools available for P12 students and their teachers that enhance learning and help build classroom community. This hybrid course will prepare P12 teachers to incorporate instructional technology, digital learning resources, and social media in P12 classrooms.

This course start date is approximately 2 weeks before the official beginning of the Spring semester.

0101	Sarah McGrew Class time/details on ELMs	Seats (Total: 26) ONLINE
0201	Sarah McGrew Class time/details on ELMs	Seats (Total: 26) ONLINE
0301	Sarah McGrew Class time/details on ELMs	Seats (Total: 26) ONLINE
0401	Sarah McGrew Class time/details on ELMs *The following days will meet synchronously from 5-6:30pm on Thursday; 1/25, 2/15, and 3/17.*	Seats (Total: 30) ONLINE

TLPL305A **Curriculum and Instruction Cluster**

(Perm req)

Restriction: This is for Seniors only.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 26)

TLPL305B **Curriculum and Instruction Cluster**

(Perm req)

This is for Juniors only.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)

TLPL332 **Arts Integration in Elementary Classrooms**

(Perm req)

Corequisite: TLPL362, EDCI362, TLPL361, and EDCI489. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL306 or TLPL332. Formerly: TLPL306.

An exploration of the theories and core practices associated with integrating the arts in ways that promote student learning in the core subjects.

0101	Khaleshia Thorpe-Price Th 12:30pm - 3:15pm	Seats (Total: 0) EDU 2212
0201	Khaleshia Thorpe-Price Th 9:00am - 11:45am	Seats (Total: 0) EDU 2212
0301	Christine Alexander W 12:30pm - 3:15pm	Seats (Total: 0) EDU 2212

TLPL340 **Introduction to Children's Literature and Critical Literacy**

Restriction: Must be in Elementary Education program; or must be a Pre-Education Major. Credit only granted for: EDCI443 or TLPL340. Formerly: EDCI443.

Analysis of literary materials for children and youth. Timeless and ageless books, and outstanding examples of contemporary publishing. Evaluation of the contributions of individual authors, illustrators and children's book awards.

0101	Cody Norton TuTh 1:00pm - 2:15pm	Seats (Total: 20) ASY 3203
0201	Olivia Saracho MW 2:00pm - 3:15pm	Seats (Total: 30) EDU 1121

TLPL342 **Promoting Skilled and Motivated Readers in Diverse Elementary Classrooms (Part 1)**

(Perm req)

Corequisite: TLPL362, TLPL361, TLPL332, and TLPL479. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL488L or TLPL342. Formerly: TLPL488L.

An investigation of the materials, curriculum, teaching and learning practices and assessment methods associated with promoting skilled and motivated readers in diverse elementary classrooms. Teacher candidates will learn to use assessments to design instruction in the core components of reading, in line with students' individual needs and the Maryland College and Career Ready Standards.

0101	Olivia Saracho Th 9:00am - 11:45am	Seats (Total: 0) EDU 2121
0201	Shannon Kane Tu 9:00am - 11:45am	Seats (Total: 0) EDU 2121
0301	Ayanna Baccus M 12:30pm - 3:15pm	Seats (Total: 0) EDU 2212

TLPL344 **Culturally Responsive Language and Literacy Instruction in Diverse Elementary Classrooms**

(Perm req)

Corequisite: TLPL300, TLPL478, and TLPL489. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL488I or TLPL 344. Formerly: TLPL488I.

Application of the asset-based practices associated with culturally responsive language and literacy programs. Teacher candidates will learn to plan, guide and assess students' integrated language and literacy practices (reading, writing, speaking and listening), with emphasis on writing instruction, in line with students' individual needs and Maryland College and Career Ready Standards.

0101	Shannon Kane Class time/details on ELMs	Seats (Total: 0) ONLINE
0201	Rose Cherussery Class time/details on ELMs	Seats (Total: 0) ONLINE
0301	Hongye Zeng Class time/details on ELMs	Seats (Total: 0) ONLINE

TLPL360 **Foundations of Education**

Credit only granted for: EDPS301 or TLPL360. Formerly: EDPS301.

Social context of education and conflicts over philosophies, values, an goals that are reflected in educational institutions in our pluralistic society. Helps teachers become reflective, critical thinkers about the social and philosophical issues they face and the choices they make.

0201	Colin McCarthy MW 12:00pm - 1:15pm	Seats (Total: 30) TWS 1106
0301	Lisa Eaker TuTh 11:00am - 12:15pm	Seats (Total: 30) EDU 3315

TLPL361 **Community, Learners, and Classroom Engagement**

(Perm req)

Corequisite: TLPL332, TLPL362, TLPL342, and TLPL479G. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department.

Focuses on classroom community building as an ethic of caring for students and examines the connection between classroom engagement and learning. Topics include student agency, the context and design of learning experiences, and the practices that sustain students' engagement in learning. Wellness strategies to support teacher resilience are also addressed.

0101	Deborah Lewin Tu 12:30pm - 3:15pm	Seats (Total: 0) SQH 1105
0201	Brooke Dalesio Tu 12:30pm - 3:15pm	Seats (Total: 0) SQH 1105
0301	Tracy Dunheimer M 9:00am - 11:45am	Seats (Total: 0) EDU 2121

TLPL362 **Curriculum and Instruction in Elementary Education: Social Studies**

(Perm req)

Corequisite: EDCI362, TLPL361, EDCI489, and TLPL306. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI322 or TLPL362. Formerly: EDCI322.

Curriculum, organization and methods of teaching, evaluation of materials, and utilization of environmental resources. Emphasis on multicultural education. Includes laboratory/field experiences.

0101	Elizabeth Crooks Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 0) EDU 3315 ONLINE

0201	Lisa Eaker Th 12:30pm - 3:15pm Class time/details on ELMs	Seats (Total: 0) EDU 2121 ONLINE
0301	Joann Kang W 9:00am - 11:45am Class time/details on ELMs	Seats (Total: 0) EDU 2212 ONLINE

TLPL379 **Professional Engagement In and Beyond the Secondary/MS/K-12 Classroom**

Provides an early field experience (e.g., tutoring young children) in secondary school settings (e.g., middle school). Recommended for students exploring the possibility of or intending to minor in Education or major in Secondary/MS/K-12 education. Credit will not be granted for experience accrued prior to registration. This course is open to all students but best suited for those interested in a career in education. Students need to be prepared to participate in as many as 10 in-person tutoring sessions over the course of the semester. Transportation is provided.

Repeatable to 3 credits. Additional information: Students need to be available for a half day once a week to engage in the field based tutoring experience. Provides an early field experience (e.g., tutoring young children) in secondary school settings (e.g., middle school). Recommended for students exploring the possibility of or intending to minor in Education or major in Secondary/MS/K-12 education. Credit will not be granted for experience accrued prior to registration. This course is open to all students but best suited for those interested in a career in education. Students need to be prepared to participate in as many as 10 in-person tutoring sessions over the course of the semester. Transportation is provided.

0101	Joann Kang Contact instructor or department for details.	Seats (Total: 15)

TLPL406 **Teaching and Learning Mathematics in the Elementary School, Part 1**

Jointly offered with: TLPL607. Credit only granted for: TLPL607 or TLPL406.

Focuses on teaching and learning whole numbers. Special emphasis will be placed on developing equitable teaching practices that enable culturally and linguistically diverse students to develop knowledge and skills that promote mathematical proficiency. Mathematical concepts: Content knowledge: some aspects of early numeracy, whole numbers and the four arithmetic operations, some aspects of algebraic thinking.

PXK2	Angela Stoltz Tu 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum and Instruction (M.Ed.), CITE to register.*	Seats (Total: 25) Location: TBA ONLINE

TLPL407 **Teaching and Learning Mathematics in the Elementary School, Part 2**

Credit only granted for: TLPL488G or TLPL407.

Focuses on teaching and learning rational numbers (fractions and decimals) and developing algebraic thinking. Special emphasis will be placed on developing equitable teaching practices that enable culturally and linguistically diverse students to develop knowledge and skills that promote mathematical proficiency. Mathematical concepts: Content knowledge: rational numbers (fractions and decimals) and the four arithmetic operations, algebraic thinking, some aspects of geometry and measurement.

PXK1	Sara Kirschner	Seats (Total: 25)
	W 5:00pm - 8:00pm	Location: TBA
	Must be in Curriculum and Instruction (M.Ed.), CITE to register.	

TLPL414 **Knowing and Learning in Mathematics and Science**

(Perm req)

Prerequisite: Must have completed or be concurrently enrolled in TLPL102. Credit only granted for: TLPL488M or TLPL414. Formerly: TLPL488M.

Special and intensive treatment of current topics and issues in mathematics and science teaching and learning, policy and leadership. The overall goal of the course is to orient future teachers to the discourses and theories that shape what we know about how students learn math and science.

0101	Anita Sanyal	Seats (Total: 24)
	TuTh 9:30am - 10:45am	PHY 1120

TLPL415 **Perspectives in Science**

Prerequisite: Permission of instructor. Credit only granted for: TLPL488W or TLPL415. Formerly: TLPL488W.

Overview of the history of science and philosophical perspectives on science, particularly as they apply to science teaching.

0101	Daniel Levin	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	PHY 1120

TLPL424 **Interdisciplinary Teaching in the Middle Grades II**

Prerequisite: EDCI360 and TLPL423. Corequisite: TLPL476 and EDCI460. Restriction: Minimum cumulative GPA of 2.5; and must be in the Middle School Teacher Education Program. Credit only granted for: EDCI414 or TLPL424. Formerly: EDCI414.

For prospective middle school teachers. Planning and implementing interdisciplinary instructional practices in middle school. Draws on the context of and experiences in the student teaching placement. Use of technology and incorporation of technology into instruction.

0101	Angela Stoltz	Seats (Total: 15)
	M 5:00pm - 7:00pm Class time/details on ELMs	EDU 2212 ONLINE

TLPL435 **Art Education Methods I**

(Perm req)

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. And must be in Secondary Educ: Art program; or must be in Secondary Educ: Art pre-major program. Credit only granted for: EDCI405 or TLPL435. Formerly: EDCI405.

Methods I provides future art teachers with a knowledge base of the theories and best practices of effective pedagogy for: teaching methods and strategies, diversity, motivational techniques, classroom management, assessment and evaluation methods, and accommodating all students including those with special needs.

0101	Margaret Walker Tu 9:00am - 11:50am	Seats (Total: 25) EDU 1315

TLPL437 **Studio Processes and Materials: 3D**

Restriction: Must be in Secondary Educ: Art program; or must be a Pre-Art Education Major. Credit only granted for: EDCI407 or EDCI437. Formerly: EDCI407.

A lecture-studio course to develop skills, material resources, and educational strategies for three-dimensional projects in school settings.

Some sessions may take place at off-site locations.

0101	Katherine Coogan MW 9:00am - 11:50am	Seats (Total: 25) EDU 1315

TLPL441 **Pedagogy of Teaching English Language Learners**

Credit only granted for: EDCI434 or TLPL441. Formerly: EDCI434.

Draws on current research to present methods of teaching English to speakers of other languages and challenges participants to analyze and apply successful classroom practices that address the needs of culturally and linguistically diverse learners (also known as English Language Learners, English Learners).

0101	Megan Peercy TuTh 12:30pm - 1:45pm	Seats (Total: 24) EDU 3233

TLPL443 **Understanding Cross-Cultural Communication for Teaching English Language Learners**

Credit only granted for: EDCI436 or TLPL443. Formerly: EDCI436.

Participants will research and critically reflect upon aspects of culture as a basis to understand students and to develop principles to guide culturally inclusive teaching decisions. Participants will better understand the role of culture and language in schooling in order to create classrooms where culturally and linguistically diverse students (also known as English Language Learners, English Learners) can succeed.

0101	Astrid Sierra Mejia	Seats (Total: 25)
	W 5:00pm - 7:45pm	TWS 0221

TLPL444 **English Grammar Pedagogy for Teachers of English Language Learners**

Credit only granted for: EDCI437 or TLPL444. Formerly: EDCI437.

Students will analyze the major grammatical structures of American English and the role of teaching grammar and developing effective classroom methods and techniques for multilingual learners. To do so, students will be exposed to diverse theories, approaches, methods, and practical techniques of grammar instruction in order to assist multilingual learners (also known as English Language Learners, English Learners) K-12 classrooms.

0101	Kellie Rolstad	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

TLPL452 **Bases for English Language Instruction**

(Perm req)

Restriction: Must be in Secondary Educ: English Language Arts program; and minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI417 or TLPL452. Formerly: EDCI417.

Examines current theory, research, best practice, curricula and materials focused on the teaching of English language to native and non-native English learners. Topics include morphology, syntax, semantics, vocabulary, pragmatics, argument, discourse structure, dialects, edited academic English, English language proficiency (listening, speaking, reading, writing) assessment, and instructional planning. English Language Learner (TESOL and SIOP) and special needs (inclusion) pupil issues considered.

0101	Franklin Horstman	Seats (Total: 30)
	W 5:00pm - 7:45pm	TWS 0201

TLPL453 **Life in Two Languages: Understanding Bilingual Communities and Individuals**

Overview of society and individual multilingualism. Topics include diglossia, language shift, codeswitching, bilingual first language acquisition, language attrition, dual language education policy and practice.

0101	Jeff MacSwan	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

TLPL461 **Materials and Instruction for Creating Skilled and Motivated Readers, Part II**

Prerequisite: TLPL361 and TLPL460. Corequisite: TLPL312, EDCI342, TLPL321, and TLPL362. Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department; and must be in Elementary Education program. Credit only granted for: EDCI462 or TLPL461. Formerly: EDCI462.

Selecting, evaluating, and using a variety of materials to create skilled and motivated readers in the elementary grades, particularly in diverse classroom settings; Topics include word analysis, spelling, writing, reading comprehension strategies, directed reading lessons, and explicit instruction.

Contact department for information to register for this course.

TLPL476 **Equity and Pedagogy**

Prerequisite: TLPL475. Corequisite: TLPL424 and EDCI460. Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Early Childhood Education; Elementary Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Physical Education; Music Education; Secondary Educ: Art; Special Education). Credit only granted for: EDCI425 or TLPL476. Formerly: EDCI425.

An exploration and application of major theoretical frameworks surrounding equity and critical pedagogy. Pedagogical decision making that leads to greater equity and improved student learning for all students. Draws on the concurrent student teaching experience.

0101	Carla Blackwell	Seats (Total: 20)
	Tu 5:00pm - 7:00pm	SQH 1111

TLPL477 **Teaching Academically, Culturally, and Linguistically Diverse Students in Middle School and Secondary Education**

Restriction: Must be in the teacher education program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL488B or TLPL477. Formerly: TLPL488B.

Instruction on methods of teaching academically, culturally, and linguistically diverse students in middle school and secondary classrooms.

0101	Lindsey Allen	Seats (Total: 25)
	Tu 5:00pm - 6:50pm	EDU 2121

TLPL478A **Professional Seminar in Education; Professional Seminar in Education: Art Education**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Katherine Coogan	Seats (Total: 8)
	Tu 4:15pm - 7:00pm	JMZ 1117

TLPL478B **Professional Seminar in Education; Professional Seminar in Education: Social Studies**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Alison Jovanovic M 5:00pm - 7:00pm Class time/details on ELMs	Seats (Total: 30) TWS 0201 ONLINE

TLPL478C **Professional Seminar in Education; Professional Seminar in Education: English**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Peggy Wilson M 4:30pm - 6:30pm Class time/details on ELMs	Seats (Total: 35) Location: TBA ONLINE

TLPL478D **Professional Seminar in Education; Professional Seminar in Education: Mathematics**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Dana Grosser-Clarkson M 4:00pm - 5:30pm Class time/details on ELMs	Seats (Total: 10) ONLINE ONLINE

TLPL478G **Professional Seminar in Education; Elementary Education**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Deborah Lewin Contact instructor or department for details. Class time/details on ELMs	Seats (Total: 0) ONLINE
0201	Brooke Dalesio Contact instructor or department for details. Class time/details on ELMs	Seats (Total: 0) ONLINE
0301	Tracy Dunheimer Contact instructor or department for details. Class time/details on ELMs	Seats (Total: 0) ONLINE

TLPL478I **Professional Seminar in Education; Elementary Education**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Stacy Currie Contact instructor or department for details.	Seats (Total: 0)
0201	Stacy Currie Contact instructor or department for details.	Seats (Total: 0)
0301	Stacy Currie Contact instructor or department for details.	Seats (Total: 0)

TLPL478K **Professional Seminar in Education; World Languages**

(Perm req)

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Antonio Perez Belda W 5:00pm - 7:30pm Class time/details on ELMs	Seats (Total: 12) SQH 1105 ONLINE

TLPL478L **Professional Seminar in Education; Agriculture**

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Melissa Welsh Contact instructor or department for details.	Seats (Total: 5)

TLPL479B **Field Experiences in Education**

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL479G **Field Experiences in Education; Internship**

(Perm req)

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay $135 lab fee.

0101	Deborah Lewin	Seats (Total: 0)
	Contact instructor or department for details.	
	Field Experience is Monday and Wednesday. Time will follow the assigned school schedule.	
0201	Brooke Dalesio	Seats (Total: 0)
	Contact instructor or department for details.	
	Field Experience is Monday and Wednesday. Time will follow the assigned school schedule.	
0301	Tracy Dunheimer	Seats (Total: 0)
	Contact instructor or department for details.	
	Field Experience is Tuesday and Thursday. Time will follow the assigned school schedule.	

TLPL488K **Special Topics in Education; STEM Participatory Action Research Project 2**

(Perm req)

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Vivian Zohery	Seats (Total: 4)
	Class time/details on ELMs	ONLINE

TLPL489 **Internship in Education**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489A **Internship in Education; Internship in Education: Art**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Katherine Coogan	Seats (Total: 18)
	Contact instructor or department for details.	

TLPL489B **Internship in Education; Internship in Education: Social Studies/History**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Alison Jovanovic	Seats (Total: 30)
	Contact instructor or department for details.	

TLPL489C **Internship in Education; Internship in Education: English**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Peggy Wilson	Seats (Total: 25)
	Contact instructor or department for details.	

TLPL489D **Internship in Education; Internship in Education: Mathematics**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Dana Grosser-Clarkson	Seats (Total: 10)
	Th 7:00pm - 9:00pm	Location: TBA

TLPL489E **Internship in Education; Internship in Education: Middle School**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Angela Stoltz	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL489F **Internship in Education; Internship in Education: Science**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Tranae Johnson	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL489G **Internship in Education; Internship in Education: Elementary Education Residency**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350.00 lab fee.

0101	Deborah Lewin	Seats (Total: 0)
	Contact instructor or department for details.	
0201	Brooke Dalesio	Seats (Total: 0)
	Contact instructor or department for details.	
0301	Tracy Dunheimer	Seats (Total: 0)
	Contact instructor or department for details.	

TLPL489K **Internship in Education; World Language**

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Please add a BPO to this course

0101	Antonio Perez Belda	Seats (Total: 12)
	Contact instructor or department for details.	

TLPL489L **Internship in Education; Agriculture**

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $350 lab fee.

0101	Melissa Welsh	Seats (Total: 5)
	Contact instructor or department for details.	

TLPL498 **Special Problems in Education**

(Perm req)

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL600 **Teaching and Learning with Technology**

Credit only granted for: EDCI687 or TLPL600. Formerly: EDCI687.

Provides a concrete, hands-on introduction to teaching and learning with technology. We will explore digital technology and its impact on learning and institutions. We will consider big ideas of the field as well as specific types of learning technologies and pedagogies for use in K-12 classrooms. We will discuss K-12 teaching methods that address the interdisciplinary nature of technology integration. The course will draw on class discussions, inquiry, instructional technology, and collaborative lab-based activities and prepare you to merge technology with your current teaching practice. Assessment with and of technology will also be explored.

PVJ1	Charlotte Avery	Seats (Total: 20)
	Meets January 3, 2024 - May 15, 2024	
	W 5:00pm - 8:00pm	BLD4 3335
	Class time/details on ELMs	ONLINE
	Must be in Curriculum and Instruction (M.Ed.), STEM to register.	

TLPL615 **Teaching and Learning Geometry in the Middle Grades**

Prerequisite: Admission to M.A. or M.Ed. with concentration in Mathematics Education; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI645 or TLPL615. Formerly: EDCI645.

Designed to enhance both the pedagogical and geometric content knowledg of middle school mathematics teachers.

PVL1	Sara Kirschner	Seats (Total: 25)
	Meets January 3, 2024 - April 24, 2024	
	Tu 5:00pm - 7:45pm	BLD4 3335
	Must be in Curriculum and Instruction (M.Ed.), Middle School Math to register.	

TLPL618 **Digital Learning Tools and Communities**

Addresses the student learning outcomes outlined by the Interstate Teacher Assessment and Support Consortium(InTASC). When this course is successfully completed, students will be able to competently integrate technology into instruction to support student learning and develop research-based strategies for instructional and school improvement. Students are expected to demonstrate proficiency in each of the seven Maryland Teacher Technology Standards as well as the International Society for Technology Educator Standards.

Contact department for information to register for this course.

TLPL641 **Reading, Cognition, and Instruction: Reading in the Content Areas I**

Credit only granted for: EDCI625 or TLPL641. Formerly: EDCI625.

Provides middle and secondary education students with an understanding of the interactive nature of the reading process, the use of research-based instructional strategies, the relationship between vocabulary development and student concept development, the design of strategic reading instruction, the methods for assessing content area literacy, and the ability to plan instruction and communicate with students, parents, and allied professionals.

0101	Ying Alice Zhang Tu 5:30pm - 8:00pm	Seats (Total: 15) Location: TBA

TLPL646 **Linguistics in Education**

Provides teachers and educational researchers with the theoretical and technical knowledge of linguistics necessary to engage effectively in their fields.

0101	Jeff MacSwan W 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 25) SQH 1103 ONLINE

TLPL647 **Diagnostic Reading Assessment and Instruction**

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI662 or TLPL647. Formerly: EDCI662.

Survey course in diagnostic reading assessment and instruction for graduate students not majoring in reading.

PXK2	Dnia Walker W 5:00pm - 8:00pm Class time/details on ELMs *Must be in Curriculum and Instruction (M.Ed.), CITE to register.*	Seats (Total: 25) Location: TBA ONLINE

TLPL654 **Clinical Instruction in Reading**

Prerequisite: TLPL653; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI665 or TLPL654. Formerly: EDCI665.

Clinical procedures and materials for reading instruction.

0101	Ayanna Baccus M 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 15) Location: TBA ONLINE

TLPL655 **Student Assessment in the Second Language Classroom**

Credit only granted for: EDCI631 or TLPL655. Formerly: EDCI631.

Participants view current school-based assessments through varied models of assessment focusing on how schools measure language and achievement for multilingual learners (also known as English Language Learners, English Learners). Participants will identify the purpose, instrument, method, and the use of assessments and evaluations most appropriate and valid for multilingual students.

Some sessions will be conducted asynchronous.

0101	Antonio Perez Belda M 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 15) JMZ 0125 ONLINE
PCQ1	Antonio Perez Belda M 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 10) JMZ 0125 ONLINE

Must be in the Dual Language Graduate Certificate programs. Registration for students outside of these programs is By Permission Only. Golden ID students are not eligible for this section.

TLPL657 Teaching for Cross Cultural Communication

Credit only granted for: EDCI633 or TLPL657. Formerly: EDCI633.

Participants will research and critically reflect upon aspects of culture as a basis to understand students and to develop principles to guide culturally inclusive teaching decisions. Participants will better understand the role of culture and language in schooling in order to create classrooms where culturally and linguistically diverse students (also known as English Language Learners, English Learners) can succeed.

0101	Astrid Sierra Mejia W 5:00pm - 7:45pm	Seats (Total: 25) TWS 0221

TLPL660 Foundations of Literacy and Biliteracy Development

Prerequisite: TLPL665. Credit only granted for: EDCI636 or TLPL660. Formerly: EDCI636.

An overview of the research on literacy and biliteracy development for English learners. Specifically, the course explores the theoretical models and processes of teaching reading and writing, current literacy/biliteracy issues, assessment, and strategies for developing literacy and biliteracy skills for English learners.

0101	Shenika Hankerson M 5:00pm - 7:45pm Class time/details on ELMs	Seats (Total: 15) JMZ 1215 ONLINE

TLPL661 Multiliteracies: Theory and Practice

Prerequisite: TLPL665. Credit only granted for: EDCI638, EDCI688J, or TLPL661. Formerly: EDCI638 and EDCI688J.

Explores the theoretical constructs and practical manifestations of multiliteracies in communities and schools by presenting an overview of the research on the constructs of New Literacy Studies, Critical Literacy, Digital Literacy, and Funds of Knowledge, as well as the practical implications of teaching reading and writing to culturally and linguistically diverse learners in content areas (i.e., language arts, math, science, social studies, etc.) in classrooms.

PUI1	Sarah Moore	Seats (Total: 15)
	Meets February 5, 2024 - May 3, 2024	
	Class time/details on ELMs	ONLINE
	Must be in Curriculum and Instruction (M.Ed.), TESOL to register.	

TLPL662 **Second Language Acquisition**

(Perm req)

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI732 or TLPL662. Formerly: EDCI732.

Major theoretical approaches to second language acquisition. For teaching English to speakers of other languages (TESOL).

0101	Laura Mahalingappa	Seats (Total: 20)
	Th 5:00pm - 7:45pm	Location: TBA

TLPL663 **Practice and Theory in Teaching Second Language Learners**

Corequisite: EDCI637 or EDCI689; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI613 or TLPL663. Formerly: EDCI613.

Focuses on issues that arise while teaching second language (ESOL or foreign language) learners. Supports implementation of theory into practice and research-based best practices during teaching internship, and completion of teaching portfolio during a second field experience.

0101	Antonio Perez Belda	Seats (Total: 12)
	W 5:00pm - 8:00pm	SQH 1105

TLPL665 **Methods of Teaching ESOL**

Credit only granted for: EDCI634 or TLPL665. Formerly: EDCI634.

Draws on current research to present methods of teaching English to speakers of other languages and challenges participants to analyze and apply successful classroom practices that address the needs of culturally and linguistically diverse learners (also known as English Language Learners, English Learners).

PUK1	Loren Jones	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Must be in Curriculum and Instruction (M.Ed.), CITE to register.	

TLPL670 **Economics of Education**

Credit only granted for: EDPS615 or TLPL670. Formerly: EDPS615.

An introduction to the application of economic principles to the study of education policy. The course content revolves around issues of efficiency, equity, and freedom of choice. Specific attention is devoted to school finance litigation and reform, practices for raising and allocating resources, and education productivity issues.

Cross-listed with PLCY688B. Credit only granted for TLPL670 or PLCY688B.

0101	Jing Liu	Seats (Total: 20)
	W 4:15pm - 7:00pm	TWS 0223

TLPL671 **Education Policy Analysis**

Credit only granted for: EDPS620 or TLPL671. Formerly: EDPS620.

Policy making in education from planning to evaluation with emphasis on the identification of policy problems and the resources available to analysts through multi-disciplinary approaches. An introductory experience with education policy analysis.

0101	Meghan Comstock	Seats (Total: 20)
	M 1:00pm - 3:45pm	EDU 3233

TLPL678 **Professional Seminar in Education**

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

Contact department for information to register for this course.

TLPL682 **Philosophy of Education**

Credit only granted for: EDPS612 or TLPL682. Formerly: EDPS612.

A study of the great educational philosophers and systems of thought affecting the development of modern education, with particular emphasis on recent scholarship on philosophical problems in education.

0101	Campbell Scribner	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	JMZ 2120

TLPL688D **Special Topics in Education; ELL Language Variation**

Special treatment of current topics and issues in teaching, learning, policy and leadership.

Contact department for information to register for this course.

TLPL689 **Internship in Education; Teaching Internship**

(Perm req)

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Antonio Perez Belda	Seats (Total: 5)
	Contact instructor or department for details.	

TLPL691 **Research Methods**

Credit only granted for: EDCI685 or TLPL691. Formerly: EDCI685.

The interpretation and conduct of research relevant to curriculum, teaching and learning.

0101	Wayne Slater	Seats (Total: 25)
	Th 5:00pm - 7:45pm	ASY 3221

TLPL697 **Embracing Diversity: Supporting Culturally and Linguistically Diverse Learners in the Secondary Classrooms**

Credit only granted for: TLPL688G or TLPL697. Formerly: TLPL688G.

Explores language variation across a wide range of social, economic, regional and ethnic groups. It is designed to help teacher candidates increase their awareness of language differences and to enhance their effectiveness when teaching in culturally and linguistically diverse secondary classrooms.

Contact department for information to register for this course.

TLPL698 **Conducting Research on Teaching; Conducting Research on Teaching**

Analysis and improvement of educational practice. Research methods used in the study of classroom teaching. Design and conduct of an action research project. Open only to students admitted to approved teacher education programs.

PVJ1	Beatriz Quintos Alonso	Seats (Total: 20)
	Meets January 3, 2024 - May 15, 2024	
	W 5:00pm - 8:00pm Class time/details on ELMs	BLD4 3335 ONLINE
	Must be in Curriculum and Instruction (M.Ed.), STEM to register.	
PXK1	Theresa Robinson	Seats (Total: 25)
	Th 5:00pm - 7:00pm Class time/details on ELMs	Location: TBA ONLINE
	Must be in Curriculum and Instruction (M.Ed.), CITE to register. Course will meet on the following Thursdays: 1/25/24, 2/8/24, 2/22/24, 3/14/24, 4/4/24, 4/25/24, and 5/9/24.	

PXK2	Theresa Robinson Th 5:00pm - 7:00pm Class time/details on ELMs	Seats (Total: 25) Location: TBA ONLINE

Must be in Curriculum and Instruction (M.Ed.), CITE to register. Course will meet on the following Thursdays: 1/25/24, 2/1/24, 2/15/24, 3/7/24, 4/4/24, 4/18/24, and 5/9/24.

TLPL699 **Master's Seminar**

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

TLPL703 **Research on Technology in Education**

Credit only granted for: EDCI788Q or TLPL703. Formerly: EDCI788Q. Additional information: Priority will be given to students in the Technology Learning and Leadership specialization.

Students explore the research methodologies used by those doing research with and on learning technologies, focusing on cultural, experimental, design and learning analytic approaches. Emphasis will be on asking meaningful research questions related to technology and exploring methodological and analytical approaches for answering them. This course will also explore research methods that examine the efficacy of new technologies, research about technology, design methods.

0101	David Weintrop W 4:15pm - 7:00pm	Seats (Total: 20) EDU 3233

TLPL708A **Special Topics in Technology, Learning & Leadership**

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	David Weintrop Tu 11:00am - 11:50am	Seats (Total: 10) Location: TBA

TLPL728 **Research Seminar in Mathematics and Science Education**

(Perm req)

Read, plan, conduct, and report on research projects and research topics in mathematics and science education. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Andrew Elby F 10:00am - 1:30pm Class time/details on ELMs	Seats (Total: 25) EDU 2121 ONLINE

TLPL766 **Impact Evaluation for Education and Public Policy**

Prerequisite: Knowledge of multivariate regression and prior experience with statistical programming software (e.g., Stata). TLPL765 or permission from instructor. Credit only granted for: TLPL766, TLPL672, or EDPS621. Formerly: TLPL672.

Students will learn about and practice using a variety of quantitative research methods that allow for causal inferences and can be applied to estimate the impact of policies or programs in education and other policy sectors.

Cross-listed with PLCY798G. Credit only granted for TLPL766 or PLCY798G.

0101	Francisco Lagos Marin Th 4:15pm - 7:00pm	Seats (Total: 20) JMZ 1122

TLPL772 **Teaching, Professional Development and School Change**

Credit only granted for: EDCI784 or TLPL772. Formerly: EDCI784.

Examines currrent scholarship on professional development for K-12 teachers, characteristics of good professional development, and its relationship to teaching, learning, and school improvement.

0101	Keisha Allen Tu 4:15pm - 7:00pm	Seats (Total: 20) EDU 3236

TLPL788G **Special Topics in Education; Critical Race Theory**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Rossina Liu M 4:15pm - 7:00pm	Seats (Total: 20) EDU 2101

TLPL788I **Special Topics in Education; Introduction to Interaction Analysis**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Janet Walkoe M 4:15pm - 7:00pm	Seats (Total: 10) EDU 2121

TLPL788L **Special Topics in Education; Participatory Action Research**

(Perm req)

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Tara Brown W 4:15pm - 7:00pm	Seats (Total: 20) JMZ 1117

TLPL788M **Special Topics in Education; Research Development Workshop**

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	David Blazar Tu 12:00pm - 12:50pm	Seats (Total: 15) EDU 2121

TLPL788P **Special Topics in Education; Black Language and Culture**

(Perm req)

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

Restriction: Must be in Teaching and Learning, Policy and Leadership (Doctoral) program" or "Permission of Department"

0101	Shenika Hankerson W 11:00am - 1:45pm	Seats (Total: 15) ARC 1123

TLPL788Q **Special Topics in Education; Seminar in Teacher Education and Professional Development**

(Perm req)

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Astrid Sierra Mejia F 12:00pm - 2:00pm	Seats (Total: 20) EDU 3233

TLPL789 **Internship in Education**

Approved professional experiences with appropriate supervision. Open only to students admitted to approved master's and doctoral specializations.

Contact department for information to register for this course.

TLPL791 **Qualitative Research I: Design and Fieldwork**

Prerequisite: EDCI790. Credit only granted for: EDCI791 or TLPL791. Formerly: EDCI791.

Examines the theoretical and epistemological moorings of different types of qualitative research. Students apply selected field research methods to problems of professional practice in schools and communities while considering central issues and dilemmas that arise while engaging in fieldwork.

0101	Jennifer Turner W 4:35pm - 7:20pm	Seats (Total: 18) LEF 1171

TLPL792 **Qualitative Research II: Analysis and Interpretation of Data**

(Perm req)

Prerequisite: TLPL791. Credit only granted for: TLPL792 or EDCI792. Formerly: EDCI792.

Considers methods of on-going data analysis, ways of knowing and writing about field research, issues of reflexivity, and the ethical and political decisions involved in crafting text. Students read literature on and exemplars of multiple modes of qualitative data analysis and interpretation.

0101	Tara Brown Tu 4:15pm - 7:00pm	Seats (Total: 20) EDU 2212

TLPL798 **Special Problems in Education**

(Perm req)

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

Contact department for information to register for this course.

TLPL799 **Master's Thesis Research**

(Perm req)

Contact department for information to register for this course.

TLPL840 **Seminar in Reading Education**

Credit only granted for: EDCI860 or TLPL840. Formerly: EDCI860.

0101	Jennifer Turner M 1:00pm - 3:45pm	Seats (Total: 20) ONLINE

TLPL860 **Seminar on Case Study Methods**

Credit only granted for: EDPS730 or TLPL860. Formerly: EDPS730.

Conceived as both an analysis of case study methods and a laboroatory for applying course content to research topics or projects of interest to students, it addresses a range of conceptual, methodological, ethical, political, and logistical issues embedded in efforts to conduct thoughtful, "disciplined" case study research. Since this focuses on case study research, it may be particularly helpful to students who are exploring various approaches to research or who are contemplating using case study methods in their theises and/or dissertations.

0101	Sophia Rodriguez Th 4:15pm - 7:00pm	Seats (Total: 20) SQH 1123

TLPL888 **Apprenticeship in Education**

(Perm req)

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

TLPL889 **Internship in Education**

(Perm req)

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

TLPL898 **Pre-Candidacy Research**
Contact department for information to register for this course.

TLPL899 **Doctoral Dissertation Research**

(Perm req)

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

TLTC Teaching and Learning Transformation Center Spring 2024

TLTC310 **Leadership in Collaborative Learning Groups**

(Perm req)

Restriction: Restricted to students selected to participate in the Guided Study Sessions through the Teaching and Learning Transformation Center. Credit only granted for: HESI318N or TLTC310. Formerly: HESI318N.

Experiential learning opportunity that applies principles of leadership, peer mentoring, and learning theory to the planning and facilitation of peer-led collaborative learning sessions. Incorporates research, reasoning, evidence, and feedback to develop a reflective practice.

0101	Danielle Pafe W 5:00pm - 6:15pm Contact instructor or department for details.	Seats (Total: 20) TLF 0103
0102	Danielle Pafe Th 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 20) TLF 0103

TLTC333 **Fundamentals of Academic Peer Mentoring**

How should scientific research influence the way we study and advance the academic performance of others? Learn about the scholarship of teaching and learning and develop the applied skills to support active learning as an academic peer mentor. Whether or not you ultimately pursue a career as an educator, the more effectively you can coach and support the performance of other people, and the more successful you will be. Guided online and face-to-face participation will culminate in a portfolio of your teaching activities and professional development.

Students must be working as an AMP in order to register for TLTC333. If you have any questions about this requirement, please email tltc-amp@umd.edu.

Click here for more course information.

0101	Mona Thompson M 10:00am - 10:50am Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 5, March 4, and April 15.*	Seats (Total: 50) ONLINE
0102	Mona Thompson M 11:00am - 11:50am Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 5, March 4, and April 15.*	Seats (Total: 50) ONLINE
0105	Mona Thompson Tu 12:30pm - 1:20pm Contact instructor or department for details. *This section will meet in person in ESJ 0201 on these dates: February 6, March 5, and April 16.*	Seats (Total: 50) ONLINE

TLTC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Prerequisite: Must have completed or be concurrently enrolled in TLTC333. Restriction: Permission of TLTC required - enrollment restriction. Repeatable to 6 credits. Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

TLTC499A **Independent Study in Teaching and Learning**

(Perm req)

Earn academic credit for the time spent supporting TLTC's educational development programs and/or engaging in the scholarship of teaching and learning.

Prerequisite: Must have completed TLTC333. Restriction: Permission of TLTC department required. Contact department for information to register for this course.

0101	Mona Thompson Contact instructor or department for details.	Seats (Total: 10)

0102	Danielle Pafe	Seats (Total: 10)
	Contact instructor or department for details.	

TLTC798 **University Teaching and Learning**

Special topic courses directed at experienced graduate teaching assistants who are interested in university teaching and learning issues. Can be used by students for participation in the Universtiy Teaching and Learning Program.

0101	Marco Molinaro	Seats (Total: 20)
	Tu 2:00pm - 4:00pm	ESJ 1103

UMEI Maryland English Institute Spring 2024

UMEI003 **English as a Foreign Language: Intermediate II**

(Perm req)

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has mastered the essential structures of English grammar. Emphasis on improving communicative skills for a wide range of linguistic situations, on rapid expansion of vocabulary, and on improving reading comprehension and basic writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Marilena Draganescu, Heather Mehrtens	Seats (Total: 10)
	MW 9:00am - 9:50am	Location: TBA
	MW 10:00am - 11:50am	Location: TBA
	TuTh 9:00am - 9:50am	Location: TBA
	TuTh 10:00am - 11:50am	Location: TBA
	F 9:00am - 11:50am	Location: TBA

UMEI005 **Advanced English as a Foreign Language**

Semi-intensive course for the nearly proficient non-native speaker of English needing additional language instruction prior to undertaking full-time academic study. Speaking and listening skills; improvement of reading speed and comprehension; and development of writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Heather Mehrtens	Seats (Total: 15)
	MTuThF 9:00am - 10:50am	ARC 1123
0201	Heather Mehrtens	Seats (Total: 15)
	MTuThF 1:00pm - 2:50pm	LEF 1222

UMEI006 **English Pronunciation**

Restriction: Must have graduate standing.

Individualized class for the non-native speaker of English. Diagnosis of individual pronunciation problems. Practice in the correct pronunciation of English sounds and improvement of ability to speak English with proper stress and intonation patterns. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Marilena Draganescu MW 1:00pm - 2:30pm	Seats (Total: 15) ATL 1106

UMEI007 **Advanced Writing for International Students**

Restriction: Must have graduate standing.

A writing skills course for the non-native speaker of English with a good command of spoken English. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Annelies Galletta MW 10:00am - 11:50am	Seats (Total: 15) EDU 2101
0201	Raymond Smith TuTh 9:00am - 10:50am	Seats (Total: 15) EDU 2101
0501	Charles Duquette Class time/details on ELMs	Seats (Total: 15) ONLINE
0601	Marilena Draganescu TuTh 10:00am - 11:50am	Seats (Total: 15) ARC 1125
0701	Charles Duquette Class time/details on ELMs	Seats (Total: 15) ONLINE
0801	Marilena Draganescu MW 9:00am - 10:50am	Seats (Total: 15) EDU 2102

UMEI012 **Integrated English: Intermediate**

Prerequisite: Placement exam; and permission of EDUC-Dean-Maryland English Institute department.

English as a Second Language course for students at the intermediate level.

0101	Louise Godley MTuWTh 9:00am - 12:30pm	Seats (Total: 16) SQH 2113

UMEI013 **Integrated English: Advanced**

Prerequisite: Placement exam; and permission of EDUC-Dean-Maryland English Institute department.

English as a Second Language for students at the advanced level.

0101	Louise Godley MTuWTh 9:00am - 12:30pm	Seats (Total: 16) ATL 1410

UMEI028A **Special Topics in English as a Second Language**

Focuses on particular English language topics for ESL student as indicated by title. Course intended to be taken concurrently with UMEI011, UMEI012, or UMEI013; but may be taken independently with special permission.

0101	Annelies Galletta W 1:30pm - 3:30pm F 10:00am - 12:00pm	Seats (Total: 16) SQH 1111 SQH 1125

UNIV University Courses Spring 2024

UNIV099 **Internship Seminar**

(Perm req)

Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Restriction: Must have earned a minimum cumulative GPA of 2.0 (undergraduates) or 3.0 (graduate students); and Permission of the Career Center; and permission of instructor.

0101	Erica Ely, Jeffrey Quinteros Ceron Contact instructor or department for details.	Seats (Total: 50)

UNIV100 **The Student in the University**

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0213	Serena Mlawsky M 2:15pm - 3:30pm	Seats (Total: 30) TWS 0205
0506	Kristen Cabrera M 11:00am - 12:50pm *Restricted to Freshmen in the College of Education.*	Seats (Total: 20) ASY 3215

0801	Thomas Steen M 3:00pm - 4:50pm	Seats (Total: 20) KEY 0124	
	Restricted to First Semester Letters and Sciences Students.		

UNIV106 **The Transfer Student in the University**

Restriction: Must be a first-semester transfer student. Credit only granted for: UNIV106 or EDCP108G.

This course is designed to assist students in making a successful transition to the University of Maryland (UMD) and to serve as an extended orientation to campus living and learning.

0101	Keanu Stovall Tu 2:00pm - 3:15pm	Seats (Total: 20) WDS 1131	
	Restricted to first-semester transfer students in Letters and Sciences.		
0102	JV Sapinoso Th 11:00am - 12:15pm	Seats (Total: 19) EDU 1315	
	Restricted to first-semester transfer students in Letters and Sciences.		

UNIV107 **Science Technology Engineering Mathematics Colloquium**

Restriction: Must be a current student in Letters & Sciences.

For students interested in pursuing a STEM related major. Introduces students to the fundamentals of career and major exploration and career development within the various disciplines of STEM.

0807	Suzanne Ashour-Bailey **Meets January 29, 2024 - April 17, 2024** W 3:00pm - 3:50pm M 3:00pm - 3:50pm	Seats (Total: 20) HBK 0109 HBK 0109	 Discussion

UNIV108 **Business Exploration Series Colloquium**

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

Restriction: Must be a current student in Letters and Science. For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

0162	Kelly Marbury, Lisa Scheeler M 4:00pm - 4:50pm W 3:00pm - 3:50pm	Seats (Total: 22) ESJ 2204 TLF 0110	 Discussion

0163	Lisa Scheeler, Kelly Marbury M 4:00pm - 4:50pm W 4:00pm - 4:50pm	Seats (Total: 22) ESJ 2204 TLF 0110	Discussion

UNIV269 **Connecting Across Cultures**

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV269A **Connecting Across Cultures; Cultural Realities of Spain**

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV362 **Designing Your Life after College**

Restriction: Must have earned a minimum of 60 credits.

Helps students anticipate and prepare for changes in finances, social life, health, and career dynamics they are likely to experience as they transition from college to working full-time. It focuses on understanding what resources students have as they enter the workforce as critical for navigating post-graduation changes successfully. It offers an overview of financial, risk management and professional development approaches to increase students' confidence regarding post-graduation decisions; in addition, it develops their creative problem solving and reflection skills to help them align the outcomes of their decisions with their values.

0101	Gabe Pickett, Kenneth Kokason Tu 4:30pm - 6:30pm	Seats (Total: 20) KEY 0117
0102	Parker Kleb, Richard Blackman Tu 4:30pm - 6:30pm	Seats (Total: 20) WDS 1131
0103	Selah Thom, Joseph Fileppi Tu 4:30pm - 6:30pm	Seats (Total: 25) TLF 0103
0104	Gerry Strumpf Tu 4:30pm - 6:30pm	Seats (Total: 20) JMZ 1226
ESG1	Tori Shay Class time/details on ELMs *Restricted to students at Shady Grove.*	Seats (Total: 50) ONLINE

UNIV389J **Special Topics in Undergraduate Studies; Federal Independent Study Projects**

(Perm req)

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	Jayakumar Arasan, Sabrina Labold, Joan Burton	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

UNIV389K **Special Topics in Undergraduate Studies; Special Topics in Experiential Learning Global Semester**

(Perm req)

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

0101	Joan Burton, Jayakumar Arasan	Seats (Total: 38)
	Class time/details on ELMs	ONLINE
0201	Joan Burton, Jayakumar Arasan	Seats (Total: 38)
	Contact instructor or department for details.	

UNIV399 **Experiential Learning in Undergraduate Studies**

(Perm req)

Experiential learning offered in conjunction with certain designated Office of Undergraduate Studies programs.

0101	Joan Burton, Sabrina Labold, Jayakumar Arasan	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

URSP Urban Studies and Planning Spring 2024

URSP372 **Diversity and the City**

Exploration of the different needs of diverse economic, racial/ethnic, and gender groups that live and work in cities, the historical background of differences, the impact of societal structures and group cultures, and how public and private policies do and can affect different groups.

0101	Priscila Alves	Seats (Total: 20)
	W 2:00pm - 4:30pm	LEF 1222

URSP399I **Independent Study**

(Perm req)

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP600 **Research Design and Application**

(Perm req)

Formerly: URSP602.

Techniques in urban research, policy analysis, and planning. Survey of descriptive and normative models. Objective and subjective measurements. Emphasis on assumptions of research.

0101	Marccus Hendricks Th 4:00pm - 6:40pm	Seats (Total: 20) KNI 1105

URSP601 **Research Methods**

Recommended: An undergraduate-level statistics course; and familiarity with Microsoft Excel. Formerly: URBS601.

Use of measurement, statistics, quantitative analysis, and micro-computers in urban studies and planning.

0101	Chengri Ding Th 4:00pm - 6:40pm	Seats (Total: 15) ARC 1125

URSP604 **The Planning Process**

(Perm req)

Credit only granted for: URSP604, URBS656, or URBS604. Formerly: URBS604.

Legal framework for U.S. planning; approaches to the planning process; tools and technology; systems thinking; defining problems and issues; soliciting goals and values; developing and making good presentations; public participation; developing and evaluating alternatives and scenarios; plan evaluation; developing RFPs.

0101	Ariel Bierbaum M 11:00am - 1:40pm	Seats (Total: 20) ARC 1119

URSP606 **Planning Economics**

Restriction: Must not have completed URSP630. Credit only granted for: URSP606, URBS606, or URBS630. Formerly: URBS606.

Resource allocation in a market economy, the nature of market failures, and the justifications for public sector intervention. The limits and possibilities for planning in a market economy.

0101	Chengri Ding Tu 4:00pm - 6:40pm	Seats (Total: 15) ARC 1123

URSP631 **Transportation and Land Use**

(Perm req)

The interrelationship between transportation and land use. What are the impacts of various transportation modes on land use patterns, and how can land use solutions influence travel demand. The integration of transportation into master planning and site impact analysis. Using quantitative methods to understand the land use and transportation linkage.

0101	Hiroyuki Iseki W 4:00pm - 6:40pm	Seats (Total: 19) ARC 1119

URSP640 **Growth Management and Environmental Planning**

(Perm req)

Topics associated with growth management, defined as policies and strategies by which governments attempted to control the amount, location, pace, pattern and quality of development within their jurisdictions.

0101	Casey Dawkins M 1:00pm - 3:40pm	Seats (Total: 25) ESJ B0320

URSP673 **Community Development**

(Perm req)

Examines and identifies planning approaches and methods that can help communities - particularly low income communities - become stronger, more cohesive, and more capable of serving their interests. Examines urban poverty; urban politics; history, concepts and practice of community development; and community development approaches and methods.

0101	Riem Elzoghbi Th 7:00pm - 9:40pm	Seats (Total: 25) ARC 1105

URSP688J **Recent Developments in Urban Studies; Economics for a Just and Sustainable World**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

Students will interrogate alternatives to market-centric perspectives to gain an appreciation of, and contribute to, the rich history of economic thinking to support equitable and sustainable cities. They will analyze ongoing projects in the DMV and make proposals for their improvement. This course incorporates real-world precedents from across the globe, which demonstrate the potential for progressive economics in practice.

0101	Evan Casper-Futterman, Jordan Ayala M 4:00pm - 6:40pm Class time/details on ELMs	Seats (Total: 15) ARC 1119 ONLINE

URSP688M **Recent Developments in Urban Studies; Intermediate Geographic Information Systems**

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Andrew Bernish	Seats (Total: 20)
	Tu 7:00pm - 9:45pm	ONLINE

URSP688O **Recent Developments in Urban Studies; US Housing Policy & Planning**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Casey Dawkins	Seats (Total: 15)
	W 1:00pm - 3:40pm	ARC 1119

URSP688P **Recent Developments in Urban Studies; Creative Placemaking and Placekeeping**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Adam Dodgshon, Sonja Ewing	Seats (Total: 15)
	W 7:00pm - 9:40pm	ARC 1119

URSP688Y **Recent Developments in Urban Studies; Smart Cities and Urban Data Science**

(Perm req)

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

Cross-listed with URSP688Y. Credit granted for URSP688Y or INST728G.

0101	Chester Harvey	Seats (Total: 30)
	M 7:00pm - 9:40pm	PKT 1112V

URSP708 **Community Planning Studio; Community Planning Studio**

(Perm req)

The Community Planning Studio is a "capstone" course intended to provide students with an opportunity to apply their knowledge and skills to analyze current, pressing planning issues, in a selected community and to produce a report containing recommendations for addressing those issues. In essence, students act as a consulting team for a community client.

0101	Nicholas Finio, Kathryn Howell TuTh 1:00pm - 3:40pm	Seats (Total: 10) PKT 1112V

URSP709 **Field Instruction**

(Perm req)

Students will satisfy a 300-hour internship (20 hours for 15 weeks during the spring, 25 hours a week for 12 weeks during the summer). Suitable internships are approved by the Internship Coordinator or Instructor; they involve a significant amount of planning work (preferably in the student's are of interest) and provide an appropriate on-site supervisor. The Internship Coordinator will assist students in finding a suitable internship, but the ultimate responsibility rests with each student. Whether the internship is paid or not is a matter to be worked out between the student and the organization.

Prerequistes: URSP600, URSP604, URSP605 or permission of the department.

0101	Casey Dawkins Contact instructor or department for details.	Seats (Total: 10)
1001	Gerrit Knaap Class time/details on ELMs	Seats (Total: 5) ONLINE
1201	Chengri Ding Class time/details on ELMs	Seats (Total: 5) ONLINE
1401	Marccus Hendricks Class time/details on ELMs	Seats (Total: 5) ONLINE
1501	Ariel Bierbaum Class time/details on ELMs	Seats (Total: 5) ONLINE
1601	Hiroyuki Iseki Class time/details on ELMs	Seats (Total: 5) ONLINE
1701	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
2103	Willow Lung Amam Class time/details on ELMs	Seats (Total: 5) ONLINE
2107	Clara Irazabal Zurita Class time/details on ELMs	Seats (Total: 10) ONLINE

URSP788 **Independent Study in Urban Studies and Planning**

(Perm req)

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP798 **Readings in Urban Studies and Planning**

(Perm req)

Directed readings in selected aspects of urban affairs and planning.

Contact department for information to register for this course.

URSP799 **Master's Thesis Research**

Contact department for information to register for this course.

URSP805 **Seminar in Research Design**

Prerequisite: URSP804 and URSP810.

Addresses fundamental aspects of research desing for Ph.D students in urban planning and policy-related fields. Topics include principles of research design, formulating a feasible hypothesis and identifying appropriate methodology for testing hypotheses eg. qualitative methods, quantitative methods, survey research. Writing of proposals and dissertation. Publication, presentation, and funding.

0101	Ariel Bierbaum	Seats (Total: 15)
	W 1:00pm - 3:40pm	PKT 1112V

URSP898 **Pre-Candidacy Research**

Selected topics in Urban Studies and Planning. Topics will vary with the instructor.

Contact department for information to register for this course.

URSP899 **Doctoral Dissertation Research**

(Perm req)

This course is a required course for the Ph.D program in Urban and Regional Planning and Design.

Contact department for information to register for this course.

USLT Latina/o Studies Spring 2024

USLT202 **US Latina/o Studies II: A Contemporary Overview 1960's to present**

Interdisciplinary course on emerging populations of Latinos in the 20th century with a focus on the multiple waves of latino immigration as a result of neocolonialism, imperialism, globalization and transnationalism. Examines the positioning of immigrant waves in the political, sociocultural and historical contexts of US Latinidades.

0101	Robert Chester	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0134

USLT403 **Citizens, Refugees, and Immigrants**

Credit only granted for: USLT403, USLT498I, AMST498N, or IMMR419D. Formerly: USLT498I.

Citizenship, Refugee and Immigrant are guiding categories that often define the Latina/o community in the United States. Employing this analytical lens, this course critically engages with notions of exclusion and inclusion, which included documentation, status, race, gender, and power. To better understand how these ideas and processes work, students are introduced to the history of Latina/o migration, US immigration policies, racial formation theory, gender construction, borderland theory, and the politics of territoriality.

0101	Perla Guerrero	Seats (Total: 20)
	MW 12:00pm - 1:15pm	TWS 0134

USLT420 **U.S. Latinas/os on the Silver Screen: The Silent Era to the Present Day.**

Credit only granted for: USLT420, USLT498A or AMST498G. Formerly: USLT498A.

Combining media theory and film history, this course considers the film industry's relationship to Latinidad, examining issues such as the shift from silent film to sound, the impact made on Latina/o images by the Second World War, and Latinas/os in the Red Scare. The second half of the course turns its attention to self-representation by Latina/o filmmakers and empathetic images created by whites in and after the 1970s. Some of the questions that the course addresses include: How have Latinas/os been depicted in Hollywood history? How have inter-American foreign relations shaped the US Latina/o image? How have Latina/o filmmakers confronted issues such as racism and sexism in the United States?

Cross-listed with AMST498G.

0101	Robert Chester	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 0134

USLT480 **Race and Nation in U.S. Cinema**

Credit only granted for: AMST498P, USLT480, or USLT498C. Formerly: USLT498C.

From the 1915 release of D.W. Griffith's The Birth of a Nation to the present, cinema has been a crucial medium through which cultural producers have advanced and contested concepts of ethnoracial and national identity in the US. This course adopts a historically-grounded practice of media criticism to understand the ideology and iconography of both Hollywood's studio system and independent cinema. The course requires students to examine film and identity through multiple, racial, methodological and theoretical lenses, including film history, and film and media theory. Focus will be the cinematic politics and poetics of racial exclusion and inclusion, empathy and disidentification, power and resistance, and the shaping of a national "imagined community." We will pursue how ideas about class, sexuality, gender, and disability have informed ideologies concerning race and nation. Classes will be divided between lecture, film viewings, and, most importantly, class discussions.

0101	Robert Chester	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0134

USLT488B **US Latina/o Senior Seminar**

A variable topics seminar that exposes students to interdisciplinary critical readings, writings, and research in U.S. Latina/o Studies. Interdisciplinary research methodologies are broadly addressed. Students will gain skills and practice in reading critical analytic texts and will develop writing skills.

A variable topics seminar that exposed students to interdisciplinary critical readings, writings, and research in U.S. Latina/o Studies. Interdisciplinary research methodologies are broadly addressed. Students will gain skills and practice in reading critical analytic texts and will develop writing skills.

0101	Nancy Mirabal	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0328

VIPS Vertically Integrated Projects Spring 2024

VIPS208E **Starting with Vertically Integrated Projects; Engineering on the Edge of Space**

(Perm req)

Team members beginning their experience with VIP@Maryland will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Design, build, test, and fly engineering experiments to the Edge of Space and beyond! Most of our flights are on latex weather balloons which can go up to an altitude of 100,000 ft or above, but we may also fly on high-altitude long-duration NASA balloons and sounding rockets. A common theme in all this research is designing light weight and low-cost experiments that can produce meaningful data and results in flight. We also like to share our enthusiasm for space engineering with kids, so we have a number of ongoing outreach activities that we encourage all participants to get involved in.

0101	Mary Bowden, Brian Dillehay, Aralia Ramirez	Seats (Total: 5)
	F 5:30pm - 7:30pm	AJC 2119

VIPS208F **Starting with Vertically Integrated Projects; Hands-on At-Home Fluids Projects**

(Perm req)

Team members beginning their experience with VIP@Maryland will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Having a hands-on lab component to fluid dynamics courses has always been an important part of the pedagogy. However, traditional instruction has required expensive room-sized equipment that is used by relatively large groups, limiting the time for exploration and real understanding of the important principles. The goal of this project is to develop a series of instructional kits that can be purchased by individual students and used at home, permitting a more creative and individualized exploration of the material, and a greater sense of ownership and depth of understanding. If you have an interest in thinking about a new way of learning, and/or interest in remote-controlled vehicles and model construction/design, this project may be a good fit for you!

0101	Ken Kiger, Brian Dillehay, Aralia Ramirez	Seats (Total: 5)
	F 3:00pm - 5:00pm	AJC 1106

VIPS208R **Starting with Vertically Integrated Projects; 3D-Printed Video Game-Playing Soft Robots**

(Perm req)

Team members beginning their experience with VIP@Maryland will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Soft robots e.g., robots composed of compliant materials and actuated by fluidic (hydraulic and/or pneumatic) have emerged as powerful alternatives for applications that would be difficult or impossible to realize using traditional, rigid robots. Despite a number of inherent benefits for soft robots, particularly in terms of safety for human-robot interactions, challenges associated with controlling the underlying fluidics of such systems represent key barriers to utility. Recently, Sochol's "Bioinspired Advanced Manufacturing (BAM)" Laboratoryintroduced a strategy for 3D printing soft robots comprising fully integrated fluidiccircuitry in a single print run and demonstrated a soft robotic "hand" capable of beating the first level of Super Mario Bros (youtu.be/5smhhTKb3DM). Unfortunately, this particular approach relied on an expensive (>$100,000) 3D printer. The goal of thisproject is to extend this strategy to inexpensive (e.g., <$500) 3D printers to supportaccessibility and, ultimately, demonstrate its efficacy by engineering soft robots capable of playing video games.

0101	Brian Dillehay, Ryan Sochol, Aralia Ramirez	Seats (Total: 5)
	TBA	AJC 1106

VIPS208T **Starting with Vertically Integrated Projects; TerpTrails: A Bluetooth Navigation and Exploration App**

(Perm req)

Team members beginning their experience with VIP@Maryland will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. The overall goal of this project is to create a location-based tool for students, faculty, staff and visitors to inform them of general information and events happening around them in real time. For example, a prospective student visiting campus can take an App guided tour based upon the major(s) they are interested in, visiting the facilities and learning about all the major has to offer. Based upon App-collected data, including where they visited and how long they spent at each location, a follow-up email can introduce them to staff that can answer questions. Further follow-up emails would remind them of application deadlines and the availability of scholarships. Another example would be letting a student passing a building know that there is currently free pizza at an event inside. Current project goals include developing the prototype app, exploring the potential of sensor technologies, designing data collection processes, developing additional use cases, and setting up and conducting field tests. Students will be encouraged to develop ideasfor future usec ases, using data to predict and suggest events/locations users havepreviously visited.

0101	Bryan Quinn, Brian Dillehay, Aralia Ramirez	Seats (Total: 5)
	W 3:00pm - 5:00pm	AVW 1318

VIPS308E **Engaging with Vertically Integrated Projects; Engineering on the Edge of Space**

(Perm req)

Team members will expand their role and responsibilities on their selected VIP@Maryland team. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Design, build, test, and fly engineering experiments to the Edge of Space and beyond! Most of our flights are on latex weather balloons which can go up to an altitude of 100,000 ft or above, but we may also fly on high-altitude long-duration NASA balloons and sounding rockets. A common theme in all this research is designing light weight and low-cost experiments that can produce meaningful data and results in flight. We also like to share our enthusiasm for space engineering with kids, so we have a number of ongoing outreach activities that we encourage all participants to get involved in.

0101	Aralia Ramirez, Mary Bowden, Brian Dillehay F 5:30pm - 7:30pm	Seats (Total: 5) AJC 2119

VIPS308F **Engaging with Vertically Integrated Projects; Hands-on At-Home Fluids Projects**

(Perm req)

Team members will expand their role and responsibilities on their selected VIP@Maryland team. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Having a hands-on lab component to fluid dynamics courses has always been an important part of the pedagogy. However, traditional instruction has required expensive room-sized equipment that is used by relatively large groups, limiting the time for exploration and real understanding of the important principles. The goal of this project is to develop a series of instructional kits that can be purchased by individual students and used at home, permitting a more creative and individualized exploration of the material, and a greater sense of ownership and depth of understanding. If you have an interest in thinking about a new way of learning, and/or interest in remote-controlled vehicles and model construction/design, this project may be a good fit for you!

0101	Aralia Ramirez, Ken Kiger, Brian Dillehay F 3:00pm - 5:00pm	Seats (Total: 5) AJC 1106

VIPS308R **Engaging with Vertically Integrated Projects; 3D-Printed Video Game-Playing Soft Robots**

(Perm req)

Team members will expand their role and responsibilities on their selected VIP@Maryland team. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Soft robots e.g., robots composed of compliant materials and actuated by fluidic (hydraulic and/or pneumatic) have emerged as powerful alternatives for applications that would be difficult or impossible to realize using traditional, rigid robots. Despite a number of inherent benefits for soft robots, particularly in terms of safety for human-robot interactions, challenges associated with controlling the underlying fluidics of such systems represent key barriers to utility. Recently, Sochol's "Bioinspired Advanced Manufacturing (BAM)" Laboratoryintroduced a strategy for 3D printing soft robots comprising fully integrated fluidiccircuitry in a single print run and demonstrated a soft robotic "hand" capable of beating the first level of Super Mario Bros (youtu.be/5smhhTKb3DM). Unfortunately, this particular approach relied on an expensive (>$100,000) 3D printer. The goal of thisproject is to extend this strategy to inexpensive (e.g., <$500) 3D printers to supportaccessibility and, ultimately, demonstrate its efficacy by engineering soft robots capable of playing video games.

0101	Brian Dillehay, Ryan Sochol, Aralia Ramirez TBA	Seats (Total: 5) AJC 1106

VIPS308T **Engaging with Vertically Integrated Projects; TerpTrails: A Bluetooth Navigation and Exploration App**

(Perm req)

Team members will expand their role and responsibilities on their selected VIP@Maryland team. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. The overall goal of this project is to create a location-based tool for students, faculty, staff and visitors to inform them of general information and events happening around them in real time. For example, a prospective student visiting campus can take an App guided tour based upon the major(s) they are interested in, visiting the facilities and learning about all the major has to offer. Based upon App-collected data, including where they visited and how long they spent at each location, a follow-up email can introduce them to staff that can answer questions. Further follow-up emails would remind them of application deadlines and the availability of scholarships. Another example would be letting a student passing a building know that there is currently free pizza at an event inside. Current project goals include developing the prototype app, exploring the potential of sensor technologies, designing data collection processes, developing additional use cases, and setting up and conducting field tests. Students will be encouraged to develop ideasfor future usec ases, using data to predict and suggest events/locations users havepreviously visited.

0101	Aralia Ramirez, Brian Dillehay, Bryan Quinn W 3:00pm - 5:00pm	Seats (Total: 5) AVW 1318

VIPS408E **Leading with Vertically Integrated Projects; Engineering on the Edge of Space**

(Perm req)

Advanced team members will take on mentorship and leaderships roles within their VIP@Maryland project. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Design, build, test, and fly engineering experiments to the Edge of Space and beyond! Most of our flights are on latex weather balloons which can go up to an altitude of 100,000 ft or above, but we may also fly on high-altitude long-duration NASA balloons and sounding rockets. A common theme in all this research is designing light weight and low-cost experiments that can produce meaningful data and results in flight. We also like to share our enthusiasm for space engineering with kids, so we have a number of ongoing outreach activities that we encourage all participants to get involved in.

0101	Mary Bowden, Brian Dillehay, Aralia Ramirez F 5:30pm - 7:30pm	Seats (Total: 3) AJC 2119

VIPS408F **Leading with Vertically Integrated Projects; Hands-on At-Home Fluids Projects**

(Perm req)

Advanced team members will take on mentorship and leaderships roles within their VIP@Maryland project. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Having a hands-on lab component to fluid dynamics courses has always been an important part of the pedagogy. However, traditional instruction has required expensive room-sized equipment that is used by relatively large groups, limiting the time for exploration and real understanding of the important principles. The goal of this project is to develop a series of instructional kits that can be purchased by individual students and used at home, permitting a more creative and individualized exploration of the material, and a greater sense of ownership and depth of understanding. If you have an interest in thinking about a new way of learning, and/or interest in remote-controlled vehicles and model construction/design, this project may be a good fit for you!

0101	Aralia Ramirez, Ken Kiger, Brian Dillehay	Seats (Total: 5)
	F 3:00pm - 5:00pm	AJC 1106

VIPS408R **Leading with Vertically Integrated Projects; 3D-Printed Video Game-Playing Soft Robots**

(Perm req)

Advanced team members will take on mentorship and leaderships roles within their VIP@Maryland project. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. Soft robots e.g., robots composed of compliant materials and actuated by fluidic (hydraulic and/or pneumatic) have emerged as powerful alternatives for applications that would be difficult or impossible to realize using traditional, rigid robots. Despite a number of inherent benefits for soft robots, particularly in terms of safety for human-robot interactions, challenges associated with controlling the underlying fluidics of such systems represent key barriers to utility. Recently, Sochol's "Bioinspired Advanced Manufacturing (BAM)" Laboratoryintroduced a strategy for 3D printing soft robots comprising fully integrated fluidiccircuitry in a single print run and demonstrated a soft robotic "hand" capable of beating the first level of Super Mario Bros (youtu.be/5smhhTKb3DM). Unfortunately, this particular approach relied on an expensive (>$100,000) 3D printer. The goal of thisproject is to extend this strategy to inexpensive (e.g., <$500) 3D printers to supportaccessibility and, ultimately, demonstrate its efficacy by engineering soft robots capable of playing video games.

0101	Aralia Ramirez, Brian Dillehay, Ryan Sochol	Seats (Total: 5)
	TBA	AJC 1106

VIPS408T **Leading with Vertically Integrated Projects; TerpTrails: A Bluetooth Navigation and Exploration App**

(Perm req)

Advanced team members will take on mentorship and leaderships roles within their VIP@Maryland project. They will engage on interdisciplinary and vertically-integrated teams with a focus on research, design, industry competition, entrepreneurship, and community engagement projects related to active research and exploration areas of UMD faculty members. Students will also participate in lectures and professional development activities that include topics related to design, research, documentation and technical writing, communication, leadership and teamwork, ethics, project management, intellectual property, information literacy, and introduction to a broad range of applicable research topics, technologies and development tools. Students are expected to maintain involvement with the same project team for multiple terms.

Restriction: Permission of department. Students must apply through the VIP@Maryland application process in order to join a VIP team. The overall goal of this project is to create a location-based tool for students, faculty, staff and visitors to inform them of general information and events happening around them in real time. For example, a prospective student visiting campus can take an App guided tour based upon the major(s) they are interested in, visiting the facilities and learning about all the major has to offer. Based upon App-collected data, including where they visited and how long they spent at each location, a follow-up email can introduce them to staff that can answer questions. Further follow-up emails would remind them of application deadlines and the availability of scholarships. Another example would be letting a student passing a building know that there is currently free pizza at an event inside. Current project goals include developing the prototype app, exploring the potential of sensor technologies, designing data collection processes, developing additional use cases, and setting up and conducting field tests. Students will be encouraged to develop ideasfor future usec ases, using data to predict and suggest events/locations users havepreviously visited.

0101	Bryan Quinn, Brian Dillehay, Aralia Ramirez W 3:00pm - 5:00pm	Seats (Total: 5) AVW 1318

VMSC Veterinary Medical Sciences Spring 2024

VMSC660 **Emerging and Re-emerging Infectious Diseases**

The global burden of emerging and re-emerging infectious diseases is growing and prompts the need for effective control of these pathogens. The objective of this course is to provide graduate students with knowledge of pathogenesis and transmission of globally evolving pathogens. Registered students for this course are expected to know fundamentals of infectious diseases. References from the peer reviewed journals will be provided to facilitate understanding of the selected topics. Opening of this course is necessary to help graduate students to stay up-to-date with currently emerging pathogens and their evolution with changes in environment. This course is complementary to other existing microbiology courses (i.e., Viral Pathogenesis) on campus. Lectures focus on an in-depth analysis of a variety of topics in current infectious diseases. The course highlights recently published literatures to evaluate evolving trends in infectious diseases. The covered topics include subjects related with various pathogens and their adaptation strategy to enhance pathogenicity and transmissibility. The lectures will also cover the control and prevention measures of these pathogens.

0101	Sean Riley F 10:00am - 12:50pm	Seats (Total: 20) Location: TBA

VMSC688A **Special Topics in Veterinary Medical Sciences; Advances in Reverse Genetics of Animal Viruses**

Lectures and discussions on current topics in veterinary medicine s as animal disease surveillance, risk analysis, molecular epidemiolo or fish pathology. Targeted at veterinary medicine (DVM) students a other graduate students with a background in veterinary medical sciences.

0101	Siba Samal Contact instructor or department for details.	Seats (Total: 10)

VMSC698 **One Health Seminar**

"One Health" is an approach that recognizes that health of people is closely connected to health of animals and our shared environment. Outstanding leaders in the field will present ideas for analysis and discussion among class members. Topics will include presentation and discussion of scientific publications, current topics, and new methodologies.

0101	Jaekeun Park Th 11:00am - 12:30pm Contact instructor or department for details.	Seats (Total: 20) GVC 1216

VMSC699 **Special Problems in Veterinary Medical Sciences**

Independent study of a specific problem related to veterinary medicine such as a disease outbreak, application of a new diagnostic test or a risk analysis related to animal health. Targeted at veterinary medicine (DVM) students and other graduate students with a background in veterinary medicine.

Contact department for information to register for this course.

VMSC720 **Viral Pathogenesis**

This course will teach graduate students about mechanisms of infections by animal and human viral pathogens, including virus-cell interactions, host responses, and consequences of virus infection. Particular attention will be focused on the molecular mechanisms of the interactions between virus and host.

0101	Yanjin Zhang F 10:00am - 11:50am	Seats (Total: 20) Location: TBA

VMSC758 **Journal Club in Comparative Biomedical Sciences**

The Journal Club in Comparative Biomedical Sciences is a graduate-level student-driven course. Each student will pick a peer-reviewed journal article for individual presentation and group discussion. The articles will cover a wide variety of biomedical science topics based on student and group interests.

0101	Seth Dickey M 11:00am - 12:00pm	Seats (Total: 10) Location: TBA

VMSC780 **Parasites of Medical and Veterinary Importance**

Restriction: Permission of instructor.

Provides students with the basic knowledge of parasites as well as research advancement in important parasites of humans and animals. Particular attention will be given to parasite biology, pathogenesis, and host responses to parasitic infection. A selection of parasites of medical and veterinary importance will be specifically covered with emphasis on recent research breakthroughs in the field.

Contact department for information to register for this course.

VMSC799 **Thesis Research**
Contact department for information to register for this course.

VMSC898 **Pre-Candidacy Research**
Contact department for information to register for this course.

VMSC899 **Dissertation Research**

(Perm req)

Contact department for information to register for this course.

WEID Words of Engagement Intergroup Dialogue Program Spring 2024

WEID139N **Navigating Social Identity Difference through Intergroup Dialogue; Race, Gender, or Sexuality**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Formerly: CHSE338N.

0101	Shantala Thompson, Peter DeCrescenzo, Tait Brooks, Brandon Harris, Kiyah McDermid, Sarah Scriven, Laura Widener, Taylor Green, Jazmin Pichardo **Meets January 24, 2024 - March 13, 2024** Tu 5:30pm - 7:30pm	Seats (Total: 45) Location: TBA

WEID139T **Navigating Social Identity Difference through Intergroup Dialogue; Race, Gender, or Citizenship**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Formerly: CHSE338T.

0201	Judith Martinez, Pascal Andebo, Brandon Harris, Sarah Scriven, Tait Brooks, Ashley Mena, Crystal Charity, Jazmin Pichardo, Laura Widener **Meets March 14, 2024 - May 9, 2024** Tu 5:30pm - 7:30pm	Seats (Total: 45) Location: TBA

WEID139U **Navigating Social Identity Difference through Intergroup Dialogue; U.S. Identity in a Global Context**

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Contact department for information to register for this course.

WGSS Women, Gender, and Sexuality Studies Spring 2024

WGSS115 **Gender, Race and Computing**

Restriction: Must not have taken CMSC216 or higher. Cross-listed with: CMSC115. Credit only granted for: WGSS115 or CMSC115.

Race and gender have shaped computing from its earliest histories to contemporary debates over bias in search algorithms, surveillance, and AI. As computational processes shape ever more dimensions of everyday life from the personal to the global scale, understanding how they operate and how power operates within them grows ever more important. Combating racism and sexism is not as simple as ensuring the pool of programmers and engineers is more diverse; structures of power are embedded in digital technologies as they are in all aspects of our society, and we must learn to perceive their operation if we hope to transform them. We will examine how racism and sexism operate in the field of computer science and in everyday uses of digital technologies, while studying how feminist and racial justice movements have created alternative approaches. This class is for anyone who wishes to better understand the relationships between digital technology, structural power, and social justice.

0101	Jennifer Manly, Alexis Lothian MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 23) IRB 2207 IRB 2207	 Discussion
0102	Alexis Lothian, Jennifer Manly MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 21) IRB 2207 IRB 2207	 Discussion

WGSS200 **Introduction to WGSS: Gender, Power, and Society**

Credit only granted for: WMST200 or WGSS200. Formerly: WMST200.

Examines constructions of race, class, sexuality, ability, and gender relations from a social science multi-disciplinary perspective. The course interrogates the ways that systems of hierarchy and privilege are created, enforced, and intersect through the language of race, class, sexuality, and national belonging. The course will provide students with the skills to examine how systems of power manifest in areas such as poverty, division of labor, health disparities, policing, violence. In addition to examining the impact of systems of power, students will reflect on their own location within the exercise of racialized, and gendered power relations. This course encourages students to understand and critique these systems both personally and politically.

0101	Neel Ahuja MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) ONLINE ONLINE	 Discussion
0102	Neel Ahuja MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 20) ONLINE ONLINE	 Discussion

0103	Neel Ahuja MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 20) ONLINE ONLINE	Discussion
0104	Neel Ahuja MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) ONLINE ONLINE	Discussion

WGSS211 **Women in America Since 1880**

Cross-listed with: HIST211. Credit only granted for: HIST211, WMST211 or WGSS211. Formerly: WMST211.

An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

0101	Katarina Keane MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 23) TWS 1100 TLF 2108	Discussion
0102	Katarina Keane MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 23) TWS 1100 TLF 2108	Discussion
0103	Katarina Keane MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 1100 TLF 2108	Discussion

WGSS250 **Introduction to WGSS: Art and Culture**

Credit only granted for: WMST250 or WGSS250. Formerly: WMST250.

Provides students with a critical introduction to the ways that art and art activism have served as a conduit to understanding and challenging systems of inequity and practices of normativity. Interrogating the categories of gender, sexuality, race, class, ability, the course will provide students with an examination of how artists have responded to pressing social justice issues of their eras. While the course centers visual art, students will also engage genres such as music, plays, literature, digital and performance art as arenas of social change.

0103	Jaime Madden MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) BPS 1243 SQH 1111	Discussion

0104	Jaime Madden MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 20) BPS 1243 EDU 1315	Discussion
0201	Jaime Madden MWF 2:00pm - 2:50pm	Seats (Total: 35) ASY 1213	
0301	Rahma Haji TuTh 8:00am - 9:15am	Seats (Total: 30) ONLINE	
0401	Renee Scott MWF 10:00am - 10:50am	Seats (Total: 30) ONLINE	
0501	Melissa Stevens TuTh 3:30pm - 4:45pm	Seats (Total: 30) ONLINE	
0601	Taylor York MW 8:30am - 9:45am	Seats (Total: 30) ONLINE	
0701	Damien Hagen MW 11:00am - 12:15pm	Seats (Total: 32) SQH 2120	
0801	Damien Hagen MW 3:30pm - 4:45pm	Seats (Total: 32) SQH 2120	
0901	Damien Hagen MW 5:00pm - 6:15pm	Seats (Total: 32) SQH 2120	
1101	Damien Hagen TuTh 11:00am - 12:15pm	Seats (Total: 30) ONLINE	

WGSS255 **Reading Women Writing**

Cross-listed with: ENGL250. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0101	Morgan Robinson	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TWS 0221

WGSS264 **Quare/Queer Contentions: Exploration of Sexualities in the Black Community**

Cross-listed with: LGBT264, AASP264. Credit only granted for: LGBT264, AASP264, WMST264 or WGSS264.

Centering the subjectivities of queer people of color generally and more specifically, Black people (as the word "quare" invites us to do), Quare/Queer Contentions takes up key moments within the history of the Black community and asks us to consider the work and presence of LGBTQ people in these moments. The course also contends with the everyday experiences of LGBTQ subjects in the Black community. Quare/Queer Contentions, therefore, interrogates the material realities of Black queer people in the context of family, religion, cultural/creative work, among others. Interdisciplinary in orientation, the course will employ primary and secondary texts, film, art, autobiographical narratives and policy data.

0101	Michelle Rowley	Seats (Total: 32)
	TuTh 12:30pm - 1:45pm	SQH 2120

WGSS275 **World Literature by Women**

Cross-listed with: CMLT275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0101	Xiaofang Huang	Seats (Total: 30)
	MWF 11:00am - 11:50am	TWS 0234

WGSS280 **Gender and Science in Film and Media**

Isaac Azimov once said of science fiction that it is the genre that "deals with the reaction of human beings to changes in science and technology." With this definition in mind, we will embark on a critical exploration of sci-fi film and other media, using it as a lens for analyzing society's deepest fears and most furtive hopes. Our investigation will center on the liminal space between hegemonic culture and its prescribed excesses. These liminal spaces--between self and other, disability and enhancement, cultural hybridization, and gender crossing--shift in response to real-world sociopolitical tensions. We will consider feminist and anti-racist media scholars' concerns over representation, authorship and ideology alongside questions of technological change. Students will use analytical and creative assignments to explore not only how the scientific imaginary serves as fertile ground for feminist, disability, and anti-racist critique, but also provides a locus for alternative futures.

0101	Jessica Mathiason	Seats (Total: 32)
	MW 4:00pm - 4:50pm	SQH 1121

WGSS290 **Bodies in Contention**

Credit only granted for: WMST298D or WGSS290. Formerly: WMST298D.

Explores the contributions of feminist scholarship in framing and resolving contemporary controversies concerning gendered bodies. It includes the ways in which knowledge about the human body has been shaped by cultural ideas of gender, race, sexuality and ability.

0101	Jessica Mathiason MWF 11:00am - 11:50am	Seats (Total: 32) SQH 1121	

WGSS291 Racialized Gender and Rebel Media

Credit only granted for: WGSS291 or WMST298N. Formerly: WMST298N.

An introduction to the interdisciplinary field of women's studies and an exploration of the ways in which media has been used as a platform for racial justice, feminist activism, and cultural transformation, with a principal focus on the expressions of women of color. The goals of the course are to explore how different forms of media shape the stories which circulate about race, femininities, masculinities, ethnicities, sexualities, religiosity, power and difference, and to examine how various media formats been used to disrupt dominant stories, to tell new stories, and to create differing understandings of citizenship.

Contact department for information to register for this course.

WGSS298N The Politics of Sexuality in America: A Historical Approach

Cross-listed with: HIST289N. Credit only granted for: HIST289N or WGSS298N.

Why do particular issues about sexuality hold such an important place in American political debates? What animates these controversies and what can a historical perspective on these issues add to our understanding of modern sexual politics? This class explores the historical sexual politics that undergird contemporary debates concerning sexuality in America. It focuses on topics that garner significant public attention - Reproductive rights - LGBTQ rights - Sexting - and explores the histories that undergird Americans disagreements.

0101	Clare Lyons MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 23) ESJ 0215 TLF 2108	 Discussion
0102	Clare Lyons MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0215 TLF 2108	 Discussion
0103	Clare Lyons MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 23) ESJ 0215 TLF 2108	 Discussion

WGSS302 Feminist, Critical Race, and Queer Theories

Prerequisite: 6 credits in LGBT, WMST, WGSS or courses that are cross-listed with these. Credit only granted for: WMST302, WGSS302 or WMST400. Formerly: WMST302.

Introduces students to some of the major concepts in feminist, critical race, and queer theories. It examines the questions: What is theory? What forms does theory take? What is the relationship between theory and practice? What is the role of theory in political and social action? In art? In personal life? What does it mean to do theory?

0101	Sydney Lewis	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	PAC 1815

WGSS319D **Workshops in Gender, Race, and Queer Studies; Disability Justice**

Topics will change each semester but all workshops will be designed to have students think transdisciplinarily and interdisciplinarily about a specific topic or issue and to understand how differing approaches shape knowledge. Assignments within the workshops are aimed at students developing their skills in forms of presentation beyond the written essay, e.g. oral argument, digital or creative projects. Collaborative work must be central to all workshop courses; these collaborative activities do not preclude the possibility of individual research/writing assignments but the Workshops should emphasize conversation, debate, collaboration, and critique more so than the individually authored essay.

The Disability Collective, a group of Black, brown, queer and trans activists, developed disability justice, an intersectional framework that examines disability and ableism as they relate to other forms of structural oppression. Using a disability justice lens we'll explore debates within academic disability studies, examine historical and contemporary disability movements and modes of organizing, and build a repertoire of skills to engage in direct action as well as social policy and technological innovation using principles of universal design. We will consider a range of social theories centering disabled standpoints: the social model of disability, feminist disability theories, disability critical race theory (DisCrit), and queer crip theory. We'll also explore what it means to live a fulfilling crip life by exploring disability justice within the domains of education, parenting, and sexuality particularly while navigating the mental health and criminal justice systems.

0101	Jessica Mathiason	Seats (Total: 25)
	MWF 2:00pm - 2:50pm	SQH 1121

WGSS320 **Women in Classical Antiquity**

Cross-listed with: CLAS320, HIST328W. Credit only granted for: CLAS320, WMST320, WGSS320 or HIST328W.

A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal, and artistic evidence; special emphasis in women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

0101	Chiara Graf	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	ESJ B0320

WGSS358 **Undergraduate Teaching Assistantship**

(Perm req)

Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WGSS course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Restriction: Permission of ARHU-Women's Studies department. Repeatable to 9 credits. Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WMST course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Contact department for information to register for this course.

WGSS368 **Undergraduate WGSS Internship**

(Perm req)

Undergraduate Internship in a position related to women, gender, and sexuality studies and overseen by a member of the WGSS faculty.

Restriction: Permission of the Harriet Tubman Department of Women, Gender, and Sexuality Studies.

Contact department for information to register for this course.

WGSS370 **Black Feminist Thought**

Prerequisite: 1 course in AASP; or 1 course in WGSS. Cross-listed with: AASP371. Credit only granted for: WMST370, WGSS370 or AASP371. Formerly: WMST370.

Examines the ideas, words and actions of Black women writers, speakers, artists, and activists in the United States.

This course introduces students to black feminist politics, writing, social and cultural analysis, and research. Black feminist thought is conceptualized as a transformative praxis grounded in African-descended women's intellectual and cultural radicalism. Centering black female activist legacies, students are introduced to theories of black feminist aesthetics, black geographies, and resistance politics, emphasizing black gender and embodiment in the 21st century.

0101	Zenzele Isoke	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SQH 1117

WGSS378 **Undergraduate Research and Creative Works Assistantship**

(Perm req)

The Undergraduate Research Assistant provides an opportunity to develop a deep understanding of specific research methods and topics while involving the student in a professional role that requires ethical responsibility. The precise syllabus for the URA will be personalized to the student's interests and abilities, as well as to the specific research project and the Faculty Mentor's expectations. The student will meet with the Faculty Mentor prior to enrolling for a URA in order to determine the responsibilities and learning goals for the semester.

Restriction: Permission of the Harriet Tubman Department of Women, Gender, and Sexuality Studies. Repeatable to 9 credits if content differs. Formerly: WMST378.

Contact department for information to register for this course.

WGSS379I **Topics in Women, Gender, and Sexuality Studies; Indigenous Feminisms**

Thematic exploration of a topic in women, gender, and sexuality studies.

In Indigenous Feminisms, students will engage with scholarship concerning Indigenous conceptions of gender, sexuality, family, and governance. In each unit, participants will study traditional practices,conceptions,and expressions of Indigenous feminisms; identify the disruptive tactics of settler colonialism, centering the resilience and resurgence of Indigenous communities. In a collaborative "pod" framework, students will engage in discussions and projects throughout the term. By the end of the course, students will craft a creative project reflecting their insights and intended contribution to Indigenous feminist movements. Key focal points include the deep dive into traditional conceptions of gender, the impact of colonial interventions, the complexities of Indigenous sexualities, familial adaptations under colonial strain, Indigenous governance, and Indigenous-led resistance and reclamation such as pipeline protests, protection of sacred Mauna Kea, and the MMIW movement.

0101	Shelbi Meissner	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	SQH 4116

WGSS452 **Women in the Media**

Cross-listed with: JOUR452. Credit only granted for: JOUR452, WMST452 or WGSS452. Formerly: WMST 452.

Participation and portrayal of women in the mass media from colonial to contemporary times.

0101	Gea Ujcic	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	KNI 1103

WGSS471 **Women's Health**

Restriction: Must be in a program in the Harriet Tubman Department of Women, Gender, and Sexuality Studies; or must be in a major within SPHL-Behavioral & Community Health department. Cross-listed with: HLTH471. Credit only granted for: HLTH471, WMST471, or WGSS471.. Formerly: WMST471.

The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

0201	M Reynolds	Seats (Total: 45)
	Class time/details on ELMs	ONLINE

WGSS487 **Advanced Research Seminar in Gender, Race, and Queer Studies**

(Perm req)

Prerequisite: WMST300 or WGSS301; and WMST400 or WGSS302. Credit only granted for: WMST487 or WGSS487. Formerly: WMST487.

A research seminar that allows students to focus their developed skills on a single topic of their own choosing while meeting regularly in seminar to discuss, critique, support, and learn from their peers' projects and assessments. Students choose a topic based on their own interests and prior coursework, perform advanced research appropriate to the question, and formulate an appropriate method of presentation of their research findings. The culminating presentation may take the form of a written paper or a creative, digital, or activist project.

0101	Jaime Madden	Seats (Total: 10)
	F 10:30am - 1:20pm	SQH 4103

WGSS488F **Senior Seminar; Blackness, Gender, and Sexuality: Women Writing Self in the African Diaspora**

(Perm req)

Seminar for advanced majors in women's studies or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

Restriction: Permission of the Harriet Tubman Department of Women,omen Gender, and Sexuality Studies. In this broadly configured course, we examine the way that Black women write new narratives and possibilities for themselves in the midst of hierarchies and harms such as trans and homophobia, patriarchy, colonialism, ableism, and white supremacy. Multi-textual in content, we will examine visual art, songs, folklore, film, literature, policy and legislative reform as conduits for how Black women flip the script and imagine new possibilities for self and community. The texts we engage will reflect key moments, movements and events from the mid-twentieth century to the present day.

0101	Michelle Rowley	Seats (Total: 15)
	Th 3:30pm - 6:00pm	SQH 4116

WGSS489 **Individual Research in Gender, Race and Queer Studies**

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS489A **Individual Research in Gender, Race and Queer Studies; WGSS Honors Thesis Writing**

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS489B **Individual Research in Gender, Race and Queer Studies**

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

2001	Neel Ahuja	Seats (Total: 2)
	Contact instructor or department for details.	

WGSS498I **Advanced Special Topics in Women, Gender, and Sexuality Studies; Asian American Women and Gender**

Advanced study of a thematic topic in women, gender, and sexuality studies.

Cross-listed with AAST498G. Credit only granted for AAST498G or WGSS498I. Examines Asian American identities through a transnational, gendered framework, and studies the impacts of exclusion and immigration laws and U.S. histories of (neo)colonialism and war on domestic, sexual, repr oductive, and economic labor of Asian American women. Also explores Asia n American feminism in context of Women of Color feminisms and queer of color critique.

0101	Jennifer Cho	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	SQH 1101

WGSS498Y **Advanced Special Topics in Women, Gender, and Sexuality Studies; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

Advanced study of a thematic topic in women, gender, and sexuality studies.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listed with LGBT448Y and ENGL439D. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Martha Nell Smith	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	TWS 1313

WGSS499 **Independent Study**

(Perm req)

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WGSS602 **Methodologies and Epistemologies in Women, Gender, and Sexuality Studies**

(Perm req)

Prerequisite: WMST400 or WGSS302; or permission of the Harriet Tubman Department of Women, Gender and Sexuality Studies. Restriction: Must be in the Women, Gender and Sexuality Studies doctoral or graduate certificate programs. Credit only granted for: WMST602 or WGSS602. Formerly: WMST602.

Examines the politics and practice of knowledge production in the interdisciplinary field of Women, Gender, and Sexuality Studies. Explores how theory is connected to the formation of raced/gendered/sexed bodies, subjectivities, and existences that unsettle Eurocentric genealogies of disciplinary knowledge formation. Introduces students to methodological and epistemological frameworks for attending to the impact of relations of power and domination on how research and scholarship are created and defined within and across disciplinary boundaries, cultures, and paradigms.

0101	Zenzele Isoke Tu 3:30pm - 6:00pm	Seats (Total: 12) SQH 4116

WGSS619 **Women, Gender, and Sexuality Studies Teaching Practicum**

(Perm req)

Provides WGSS graduate teaching assistants with ongoing regular faculty supervision during the semesters the students are teaching courses in the department.

Contact department for information to register for this course.

WGSS628 **Women, Gender, and Sexuality Studies Colloquium**

(Perm req)

An intensive advanced exploration of current problems and issues in women, gender, and sexuality studies.

0101	Neda Atanasoski W 4:00pm - 5:45pm	Seats (Total: 12) SQH 4116

WGSS698G **Special Topics in Women, Gender, and Sexuality Studies; Afterworlds**

(Perm req)

Advanced work in selected topics in Women, Gender, and Sexuality Studies

Restriction: Must be in the Women, Gender and Sexuality Studies doctoral or graduate certificate programs. This seminar brings together varied theoretical interventions that disrupt the totalizing frameworks of biopolitics and necropolitics. The class will engage with fiction, new media, ethnography and critical theory from the interdisciplinary fields of Black Studies, Dalit Studies, South Asian Studies, queer, trans and feminist studies and indigenous studies to ask what social worlds are generated by violence and most importantly how life persists surrounded by death. Hortense Spillers, Saidiya Hartman, Christina Sharpe, Eva Tuck, Shailaja Paik, Anand Taneja, Omar Kasmani, Lisa Stevenson, Nayanika Mookherjee, Juana Maria Rodriguez and Malik Sajad are some of the authors we will engage with.

0101	Sayan Bhattacharya M 2:00pm - 4:30pm	Seats (Total: 16) SQH 1111

WGSS698I **Special Topics in Women, Gender, and Sexuality Studies; Indigenous Aesthetics**

(Perm req)

Advanced work in selected topics in Women, Gender, and Sexuality Studies

Restriction: Must be in the Women, Gender and Sexuality Studies doctoral or graduate certificate programs. This course offers a comprehensive examination of Indigenous aesthetics across four distinct units. The curriculum draws upon the works of renowned artists such as Kent Monkman and Rebecca Belmore, as well as the insights of theorists like Gerald Vizenor and Leanne Betasamosake Simpson. These units encompass foundational understandings of aesthetics and contemporary Indigenous art; a contrastive study of Indigenous aesthetictheory with settler perspectives; an immersive focus on the artistry and significance of basket-making in Indigenous cultures;and reflections on Indigenous futurity in juxtaposition with settler temporal conceptions. Each unit is punctuated by a week of theoretical study, interactive coursework, and experiential learning through crafting and tactile interactions. A confluence of readings, multimedia resources, and hands-on experiences ensures participants gain a profound grasp of Indigenous artforms, histories, and visions for the future. For the course culmination, students will produce a final paper complemented by a reflective portfolio and a unique creative component.

0101	Shelbi Meissner Th 5:00pm - 7:30pm	Seats (Total: 10) SQH 2120

WGSS698P **Special Topics in Women, Gender, and Sexuality Studies**

Advanced work in selected topics in Women, Gender, and Sexuality Studies

0101	Christina Hanhardt Tu 3:00pm - 5:40pm	Seats (Total: 20) TWS 0134

WGSS699 **Independent Study**

(Perm req)

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member of the Harriet Tubman Department of Women, Gender, and Sexuality Studies.

Contact department for information to register for this course.

WGSS708 **Research Seminar in Women, Gender, and Sexuality Studies**

(Perm req)

Guides students through the process of developing a research article in Women, Gender, and Sexuality Studies from idea to completed draft, with a view to future publication. Students will work to build research skills and develop their individual projects within the structure, accountability, and collaboration of a seminar format. The work of the class will include arranging individual meetings with core and affiliate Harriet Tubman Department of Women, Gender, and Sexuality Studies faculty who can advise the student on their specific research area.

0101	Neel Ahuja Th 10:00am - 12:30pm	Seats (Total: 12) SQH 4116

WGSS709 **Directed Independent Reading for Major Field Exam**

(Perm req)

Directed reading in preparation for Major Field Exam. In consultation with their advisors, students identify, analyze, critique and synthesize material relevant to their major fields of inquiry. Grading will be based on combinations of oral performance in the bi-weekly meetings, production of annotated bibliographies and synthetic papers.

Contact department for information to register for this course.

WGSS799 **Masters Thesis Research**

(Perm req)

Master's Thesis Research

Contact department for information to register for this course.

WGSS898 **Pre-Candidacy Research**

(Perm req)

Pre-Candidacy Research

Contact department for information to register for this course.

WGSS899 **Doctoral Dissertation Research**

(Perm req)

Doctoral Dissertation Research

Contact department for information to register for this course.

XPER xFoundry Spring 2024

XPER433 **Xperiment to Address Grand Challenges**

(Perm req)

Restriction: Permission required by the xFoundry Program. Additional information: For more information, and to request permission to enroll, visit https://xfoundry.umd.edu/xperience.

Students will collaborate with each other using creative approaches to address complex real-world challenges. You will develop skills for interdisciplinary teamwork, problem-solving, and idea testing through hands-on experiences and guided discussions and reflections. By the end, you will form a multidisciplinary team of co-innovators ready to design a solution to a well-defined, real-world problem.

0101	Gerald Suarez, Christina Hnatov, Martha Wang	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	ESJ 2101
	Th 5:00pm - 6:30pm	ESJ 2101